AMERICAN SURGERY AND GYNECOLOGY

...PUBLISHT MONTHLY...

BY THE

AMERICAN JOURNAL PUBLISHING CO.,

EDITORIAL AND PUBLICATION OFFICE: 3727 Finney Avenue,

ST. LOUIS, MO.

Entered at the St. Louis Post Office as Second Class Matter.

Vol. XIV. SEPTEMBER, 1900. No. 2

Suprarenal Therapy In Hay Fever.

Extract of Suprarenal Capsules has been employed extensively, during the last two or three seasons, in the treatment of Hay Fever with the most marvelous results.

Used locally or internally, the Extract controls the vaso-motor vessels of the nose, reduces the turbinate bodies, lessens irritation and stops discharge and sneezing.

For local use, a 6% to 12% aqueous solution should be applied by means of a spray, or on pledgets of cotton, every two hours until the symptoms disappear, and re-applied when they return.

For internal use, give one to three grains of the Desiccated Suprarenal Capsules every two hours until palpitation is observed, or until the effect of the remedy is shown upon the nasal membrane; then diminish the dose, or give at greater intervals.

We offer the Suprarenal Extract in powder and in tablets.
Samples and literature to physicians upon request.

Armour & Company, Chicago.

PERRIN & SMITH PRINTING CO., ST. LOUIS.

SYRUPUS ROBORANS

SYRUP HYPOPHOS, COMPOUND with QUININE, MANGANESE and STRYCHNINE.

Syrupus Roborans as a Tonic During Convalescence has no Equal.

As a nerve stimulant and restorative in wasting and debilitating diseases, as a constructive agent in Insomnia, Pneumonia, Tuberculosis, Bronchial Asthma, Marasmus, Strumous Diseases and General Debility, this compound has no superior.

SYRUPUS ROBORANS is in perfect solution and will keep in any climate.

DR. W. O. ROBERTS says:—In cases convalescing from "La Grippe" **SYRUPUS ROBORANS** has no equal.

Peter's Peptic Essence Comp.

A POWERFUL DIGESTIVE FLUID IN PALATABLE FORM. . . . .

Please note that Essence and Elixir Pepsin contain only Pepsin, while in Peter's Peptic Essence Compound we have all the Digestive Ferments.

It is a Stomachic Tonic and relieves indigestion, flatulency, and has the remarkable property of arresting vomiting during pregnancy. It is a remedy of great value in Gastralgia, Enteralgia, Cholera Infantum, and Intestinal Derangements, especially those of an inflammatory Character. For nursing mothers and teething children it has no equal.

Samples sent upon application. **Express Charges at Your Expense.** **For Sale by all Wholesale Druggists.**

ARTHUR PETER & CO., LOUISVILLE, KY.

SANMETTO FOR GENITO-URINARY DISEASES.

A Scientific Blending of True Santal and Saw Palmetto in a Pleasant Aromatic Vehicle.

A Vitalizing Tonic to the Reproductive System.

SPECIALLY VALUABLE IN PROSTATIC TROUBLES OF OLD MEN—IRRITABLE BLADDER—CYSTITIS—URETHRITIS—PRE-SENILITY.

DOSE:—One Teaspoonful Four Times a Day. **OD CHEM. CO., NEW YORK.**

Trophonine

a palatable and nutritious liquid food, contains the nutritive elements of beef, wheat gluten and nucleoalbumins, so prepared as to be readily absorbed and aid almost immediately in the process of reconstruction. It furnishes the sick with the largest possible supply of nourishment and with the minimum tax on the digestive organs.

Protonuclein

by increasing the number of Leucocytes, destroys toxic germs, increases the inherent resistance to disease, quickens glandular activity, arouses the nutritive forces, gives tone to the system, and stimulates cell-life throughout the organism.

Peptenzyme

is the only perfect digestant. It digests every variety of food. In physiological activity it presents the active and mother ferments of the entire group of digestive organs. It aids digestion by furnishing an additional supply of protoplasmic material out of which active ferments are elaborated, and perfects the process by increasing cellular activity.

PATHOLOGICAL, CHEMICAL AND BACTERIOLOGICAL LABORATORIES.

WE RESPECTFULLY SOLICIT THE PATRONAGE OF THE MEDICAL PROFESSION TO THESE NEW BRANCHES OF OUR LABORATORIES. FOR ILLUSTRATED BOOKLET AND FEE TABLE, ADDRESS

Reed & Carnrick, - - 42=46 Germania Ave., Jersey City, N. J.

American Journal of Surgery and Gynecology.

VOLUME XIV. ST. LOUIS, MO., SEPTEMBER, 1900. NUMBER 2.

THE RECOGNITION OF SYPHILIS BY EXAMINATION OF THE BLOOD.*

BY BENJ. F. GILLMOR, M. D., HAMBURG, IOWA.

Syphilis occupies such a prominent position in the mind of the diagnostician as he confronts any case that is peculiar, suspicious or obscure; and, in moving forward to a determination of the patient's condition and a diagnosis, he spends so much time and labor in drawing out the history of syphilitic infection and in searching for its scars and ravages, that the surgeon has long felt the need of a more rapid, more certain and more scientific method than this to assist him in his diagnosis. Recent researches into the hematology of syphilis bid fair to afford us this much-needed aid. To be sure, certain cases of syphilis may be diagnosed as such without the formality of confirmation by a blood-examination; but in obscure cases, such as those affecting the central nervous structures, where the exterior is often without blemish, where the patient may be dishonest in his replies, and where a hundred circumstances may exist to confuse the doctor, an examination of the blood may do much to put him right.

Everyone is familiar with the anemic appearance of the syphilitic. This anemia is not alone numerical, but qualitative. In the early stage of the disease there is but a slight decrease in the number of corpuscles, but this decrease advances as long as the disease continues unchekt. Even in the beginning the simple numerical change rapidly becomes a complicated qualitative alteration in the cellular elements of the blood. As in chlorosis, our "statement" of the blood condition, as regards the erythrocyte, is simple enough, tho the condition within itself is, in all probability, surpassingly intricate and obscure; for what we see is simply a reduction of the amount of hemoglobin in each red cell, while the conditions that react in this manner upon the genesis and career of the cell must indeed be intricate and multiform.

It seems that the virus of syphilis affects its impression upon the blood mainly thru its perversion of hematogenesis. In the very young, in whom the functions of blood generation are as yet unstable and quite impressionable, the effects of the inherited infection upon hematogenesis may be viewed anatomically with the microscope, which reveals many nucleated red cells and cells deformed in shape and altered in stature; but in the adult, the examination reveals only a decrease in the number of red cells and a reduction in the color index.

It is reasonable to infer that this effect is produced either by a continued impression of the virus upon the cell in the blood or that the effect is imprinted upon the cell prior to the time when it is launcht upon its diminutive but vital mission. Probably a portion of the truth rests with each of these inferences; but however the alterations in the red cells may have been effected, it is evident that they are changed, not only in their chemistry and anatomy, but in their physiology as well. Evidence of this change in their vital properties is revealed by the reaction of the erythrocytes to certain changes that may be induced artificially in their environment. In syphilis the erythrocyte is abnormally sensitive to the influence of mercury, and an anemia is much more readily induced by its administration than in health.

This reaction is of diagnostic value, but it may be applied to the recognition of early syphilis only, for the reaction cannot be obtained, to a degree sufficient for diagnostic purposes, after the advent of the secondary eruption. The reaction consists principally in a reduction of the hemoglobin, tho there is also an accompanying, but slight, reduction in the number of red cells.

In applying the test, we first try the hemoglobin of the patient: a thoro inunction or a good-sized subcutaneous injection of mercury is then administered and a reduction of from ten to twenty per cent in the hemoglobin is sought for within twenty-four hours. In syphilis alone is such a reduction found!

The simplicity with which the hemoglobin tests may be made is remarkable and permits description even in this brief paper. All that is required is a small quantity of chloroform and benzine, a hydrometer jar and a hydrometer of sufficient accuracy. The chloroform and benzine are mixt in the jar in such proportions as to make a mixture of approximately the specific gravity of blood. The specific gravity of this mixture may be changed at will by adding more or less of either of its compounds. The ear is then washt clean with water, and soap, if necessary, and dried. A small drop of blood is secured by puncture and conveyed to the mixture in the jar. The mixture is then changed by the addition of either chloroform or benzine until the drop is suspended in the middle of the column in the jar. The specific gravity of this mixture then corresponds with that of the small blood drop suspended in it. The hemoglobin percentage may be at once ascertained by reference to the tables of Hammerschlag:

Specific gravity.	Percentage.
1033 to 1035	25 to 30 per cent
1035 to 1038	30 to 35 per cent
1038 to 1040	35 to 40 per cent
1040 to 1045	40 to 45 per cent
1045 to 1048	45 to 55 per cent
1048 to 1050	55 to 65 per cent
1050 to 1053	65 to 70 per cent
1053 to 1055	70 to 75 per cent
1055 to 1057	75 to 85 per cent
1057 to 1060	85 to 95 per cent

This table has recently been corrected, and better tabulations may be found in Cabot's work on the blood and in Lea Brothers' "Progressive Medicine," fourth volume.

The mercury is then administered and the hemoglobin estimation repeated some time within the twenty-four hours.

One at once appreciates the value of this means of diagnosis, and it has been seized upon by a thousand observers and practically applied; but a limitation of its applicability to the first stage of syphilis relegates it to a position of secondary importance among diagnostic procedures, and leads us, as it were, to disappointment, for it is in the recognition of old and obscure syphilis that we are most in need of assistance; and it is toward the acquisition of such assistance that our hopes have been most eagerly extended.

Let us then turn our attention to the other cellular constituents of the blood, the leucocytes; which little elements are always much more directly concerned in disease processes than the erythrocytes and in all forms of infection much greater change is discoverable among them than among the red cells.

In the first stage of syphilis they are either normal in number or but slightly increast, tho there is an appreciable change in the relative proportions of the different forms of leucocytes, for the percentage of adult forms is low, while the number of young cells ranges high. There exists also a reaction to mercury that is parallel to the reaction of the erythrocytes to the same agent. If mercury be administered in this stage of the disease, the adult cells begin to increase in number and the young cells to correspondingly decrease. Iodide of potassium possesses an action on the leucocytes similar to that of mercury, the action of both being a reversal of the action produced in health, for both the iodide and mercury diminish the number of adult white cells when administered to a healthy individual.

With the advent of the secondary eruption there is generally a leucocytosis, associated with a relative increase of lymphocytes and eosinophiles. In this stage the administration of the iodide and mercury brings down the leucocyte-count, increases the number of red cells and tends to restore the leucocytes to their normal relative proportions.

These reactions are all of great value in the diagnosis of the primary and secondary stages of syphilis, and these reactions of the blood to mercury and the iodides, both in the leucocyte-counts and the hemoglobin percentages, suffice to establish a diagnosis of syphilis beyond dispute. The value of these means of diagnosis is inestimable, and they should be applied in every suspected case of early syphilis; yet the greatest of our needs remains still partly unfulfilled, for the assistance that hematology lends us in the diagnosis of tertiary syphilis is still inadequate, tho valuable, nevertheless.

In tertiary syphilis there is often a severe anemia and leucocytosis is often to be found. The differential leucocyte-count is of greater value, however, to the diagnostician, for there is commonly an increase of lymphocytes and a diminsht number of adult cells. Occasionally a small number of myelocytes are found. In a given case, the discovery of a lymphocytosis and a number of

*Read before the semi-annual meeting of the Southwestern Medical Association of Iowa at Glenwood, Iowa, August 16, 1900.

eosinophiles would be factors in the diagnosis whose weight would be cast in favor of syphilis.

The hematology of tertiary syphilis is as yet imperfect, but the results that have already been achieved lead us to expect, in the not distant future, a means for diagnosis of this stage that shall be on a par with the mercury reactions for the early stages and the Widal reaction in typhoid.

THE MEDICO-LEGAL RELATIONS OF THE X-RAYS.*

BY J. WILLIAM WHITE, M.D., LL.D., PHILADELPHIA, PA.
Professor of Surgery in the University of Pennsylvania.

At the meeting of the American Surgical Association in 1897, in a paper on "Roentgen Rays in Surgery," I made the following remarks:

"Before leaving the subject of fractures, it may be well to present for discussion a few questions having a medico-legal bearing, even altho it may not be possible at present to answer them finally.

"We may begin by asking whether skiagraphy has as yet given us a better understanding of fractures in general or has been the means of suggesting more efficient treatment.

"It is difficult, in reply, to point to any one definite addition to our knowledge of these injuries, and so far as I know no material modification of the general rules governing the treatment either of fractures generally or of any specific fracture has as yet resulted; but in individual cases, such as have been described above, it has certainly been of great utility, and is likely to become more valuable as technic improves and experience increases.

"The question whether or not the patient has the legal right to demand, as 'ordinary care,' that the medical attendant should have a skiagraph of the fracture taken, I would at this time unhesitatingly answer in the negative. Until a much larger number of cases have been observed, and the pictures and the clinical results have been compared, the routine use of skiagraphy might be more harmful than useful.

"There can be no doubt, however, that skiagraphs will figure largely in suits for damages after accidents and in cases of alleged malpractice. They have already been admitted as evidence in such cases, and it is probable that juries will, with increasing frequency, have to decide whether to place greater weight on deformity as shown by skiagraphs or on expert evidence as to the absence of genuine disability. It seems obvious that each case must be studied by itself, but that it would be injudicious, if not altogether unwarranted, for us to assume at present that the legal value of these pictures should be higher than the opinion of experts based upon other and well-known factors; that is, that instead of being exclusively depended upon, pictorial evidence should receive only its due amount of consideration in connection with clinical evidence. Clinical evidence should have, and does have, large weight in the question as to results after fracture and other injury. Knowledge obtained by long experience and positive indications is far more valuable than any representation visible alone to the eye."

Williams and Lloyd (Annals of Surgery, October, 1898) write on the X-rays in medico-legal cases. They are not enthusiastic as to the value of such evidence. In taking these pictures it is very easy to increase in the picture any existing deformity by just placing the tube slightly out of proper position. Hence if an X-ray print is presented in court it should have been taken before witnesses who can prove the position of the patient, the tube and the photographic plate, and the distance it was from the tube!

Edmund Owen (The Practitioner, May, 1899) "shows that individuals who have been treated for fracture and who have gone around with ease and comfort may exhibit in an X-ray picture noteworthy deformity, and if an enterprising solicitor gets hold of such a case and exhibits such a picture of deformity to a sympathetic jury, it is not improbable that damages might be given against the physician. Inconvenient illuminations of badly set fractures and in other cases in which nature has not been enabled to triumph over osseous lesions are becoming of frequent occurrence, as patients are getting in the habit of having pictures taken after some surgeon has made a diagnosis, and mistakes are thus nailed to the barn door."

Mr. Golding Bird (British Medical Journal, April 21, 1900), in a clinical lecture recently delivered, said: "I would here warn you all of a danger in skiagraphy. I know that it has happened for a patient to have his limb skiagrapht after he had been properly treated, and because the picture showed an exceedingly slight irregularity along the edge of the bone indicating the position of the fracture, he went from one surgeon to another to obtain an expression of opinion that the union of the fracture was not perfect, in order that he might sue for damages the gentleman who had treated him. You will find that few fractures will bear the test of photography in that sense, and I should warn you against appealing to it in your own work as proof of the goodness of your treatment, lest you should be called to account for having produced a union of the bone not absolutely as perfect in appearance as it was prior to the accident, altho its utility now may be in no way impaired."

With this review of a small portion of the existing evidence the following conclusions are respectfully offered to the Association for discussion:

1. The routine employment of the X-ray in cases of fracture is not at present of sufficient definite advantage to justify the teaching that it should be used in every case. If the surgeon is in doubt as to his diagnosis, he should make use of this as of every other available means to add to his knowledge of the case, but even then he should not forget the grave possibilities of misinterpretation. There is evidence that in competent hands plates may be made that will fail to reveal the presence of existing fractures or will appear to show a fracture that does not exist.

2. In the regions of the base of the skull, the spine, the pelvis and the hips the X-ray results have not as yet been thoroly satisfactory, altho good skiagraphs have been made of lesions in the last three localities. On account of the rarity of such skiagraphs of these parts, special caution should be observed, when they are affected, in basing upon X-ray testimony any important diagnosis or line of treatment.

3. As to questions of deformity, skiagraphs alone, without expert surgical interpretation, are generally useless and frequently misleading. The appearance of deformity may be produced in any normal bone, and existing deformity may be grossly exaggerated.

4. It is not possible to distinguish after recent fractures between cases in which perfectly satisfactory callus has formed and cases which will go on to non-union. Neither can fibrous union be distinguisht from union by callus in which lime-salts have not yet been deposited. There is abundant evidence to show that the use of the X-ray in these cases should be regarded as merely the adjunct to other surgical methods, and that its testimony is especially fallible.

5. The evidence as to X-ray burns seems to show that in the majority of cases they are easily and certainly preventable. The essential cause is still a matter of dispute. It seems not unlikely when the strange susceptibilities due to idiosyncrasy are remembered that in a small number of cases it may make a given individual especially liable to this form of injury.

6. In the recognition of foreign bodies the skiagraph is of the very greatest value; in their localization it has occasionally failed. The mistakes recorded in the former case should easily have been avoided; in the latter they are becoming less and less frequent, and by the employment of accurate mathematical methods can probably in time be eliminated. In the meanwhile, however, the surgeon who bases an important operation on the localization of a foreign body buried in the tissues should remember the possibility of error that still exists.

7. It has not seemed worth while to attempt a review of the situation from the strictly legal standpoint. It would vary in different states and with different judges to interpret the law. The evidence shows, however, that in many places and under many differing circumstances the skiagraph will undoubtedly be a factor in medico-legal cases.

8. The technicalities of its production, the manipulation of the apparatus, etc., are already in the hands of specialists, and with that subject also it has not seemed worth while to deal. But it is earnestly recommended that the surgeon should so familiarize himself with the appearance of skiagraphs, with their distortions, with the relative values of their shadows and outlines, as to be himself the judge of their teachings, and not depend upon the interpretation of others who may lack the wide experience with surgical injury and disease necessary for the correct reading of these pictures.†

*Extract from Address of Chairman of Committee on this subject before the American Surgical Association.

†It is worthy of note that these conclusions were unanimously adopted as expressing the views of the American Surgical Association.—Editor.

It should always be remembered that in epistaxis the source of the hemorrhage is almost always quite limited and situated well forward. When this is the case, compression suffices to stop it. In addition, one may inject a five to ten per cent solution of gelatin in artificial serum, or apply tampons wet with such a solution. If it is found necessary to plug the posterior nares, the tampon should not be left in place for more than twenty-four hours.

MYOMECTOMY DURING THE SIXTH MONTH OF PREGNANCY.—RECOVERY.*

BY EUGENE R. LEWIS, A.M., M.D., KANSAS CITY, MO.
Professor of the Principles and Practice of Surgery and Clinical Surgery in the Medico-Chirurgical College.

As a member of the committee on the progress of surgery in the Missouri State Medical Society, I have askt the chairman to allow me to present this paper, which contains the report of a successful myomectomy made during the sixth month of gestation. No successful case of the kind is on record, so far as my knowledge goes; and I have been diligent in my efforts to find one recorded. Since the books at my command did not contain the information I desired on this subject, I addrest letters to a number of the prominent surgeons and physicians of our state and country. I quote from the letters of Prof. Howard A. Keliy, of Johns Hopkins University; Prof. Nicholas Senn, of Rush Medical College, and Prof. E. E. Montgomery, of Jefferson Medical College. Professor Kelly says: "I know of no case of intramural fibroid, i. e., one with a thick capsule of uterine muscle over it, which has been removed in pregnancy without provoking abortion," etc. Professor Senn says: "I have done many enucleations, but without similar results; the case deserves a permanent place in literature. My enucleations were made on the nonimpregnated uterus." Professor Montgomery says: "It has not been my privilege to operate upon a fibroid of the intramural variety during pregnancy," etc. It is possible I may yet find that I have not made the first successful myomectomy upon the pregnant uterus, but so far, I am proud to be able to claim priority for my native state in this direction.

The patient, Mrs. Pauline A., 27 years of age, primipara, was brought to my office in November, 1899, by Dr. S. D. Smith, of Cowgill, Mo. I had several physicians examine her with me (and Dr. Smith had others do this), for her condition seemed to be rapidly growing from bad to worse, and her distress called for instant action. Myomectomy, as described by Howard A. Kelly, was performed on the patient November 27, 1899, at the hospital, before the class of the Women's Medical College, Drs. T. B. Thrush, B. L. Sulzbacher and Nannie P. Lewis assisting me. The uterus was in the sixth month of gestation, and the tumor, as large as a large orange, was situated superior and anterior to the tube on the right side. An incision in the linea alba, about nine inches in length, was made to allow the extrusion of the entire gravid uterus and its appendages. The tumor did not involve the Fallopian tube, but projected out from the uterus like a large knot on a log. The serious complications liable to arise from an effort to remove the solid fibroid tumor were not underestimated, but were well considered. The rapidly failing health of the patient, the great distension of the abdomen, in fact, the congeries of conditions present in the case, were rather dazzling, but the relief of the patient was imperative; something had to be done, and as instantaneously as possible. A mistake in diagnosis led to the operation, as the tumor was supposed to be occupying the tube, and not connected at all with the uterus proper. The child could be plainly felt in motion beneath the thin walls beyond the growth. Realizing the situation, the question was hurriedly raised as to a complete hysterectomy, but as the operations of that character within our knowledge and experience had all proved fatal at this advanced stage of pregnancy, it was interdicted; so but one of two things remained for us to do instantly, either return the entire mass and try to close the abdomen, or try to remove the growth from the wall of the uterus and return what was left. I at once made an incision over the dense growth, about five or six inches in length, in the uterine muscle wall, and quite rapidly hulled out the tumor, leaving free hemorrhage to contend with at a limited area of the surface exposed. Very deep sutures were used to control the bleeding, and the opening in the uterus was closed with interrupted sutures; over the outside of this closed incision I laid a strip of iodoform gauze, one end of which I left exposed on closing the abdominal incision. The fourth day I removed this gauze and on the twenty-fifth she was allowed to go to her home at Cowgill, Mo., forty-five or fifty miles distant. She was confined at full term, March 11, 1900, just three and a half months after the operation. Dr. Geo. B. Cowley, who attended her, wrote that mother and child were doing well and that delivery was made without forceps, the use of which I had advised for fear of a rupture of the organ in a prolonged labor.

One point I wish to call attention to: In regard to the relation of the placenta to the tumor, viz.: the placenta seemed to have its attachment immediately beneath the growth, for on all other parts the uterus seemed as thin and yielding as a bladder. In fact, the thinness of the walls of the organ was a great surprise to me, and the psychologic effect made on me during the process of manipulation is permanent. There were no points in connection with the convalescence worthy of special mention. The patient's condition seemed to improve continuously after the shock of the operation had past off. She took chloroform poorly, which was an additional source of uneasiness, but she rallied from it during the first thirty-six hours, after which all was well, and an uninterrupted recovery followed. A little over a week since—May 7—a letter from the patient's physician, Dr. Cowley, says: "I saw the baby yesterday—about two months old—mother and child well."

*Read before the Missouri State Medical Association May 16, 1900.

ACUTE HEPATITIS, CIRRHOSIS OF THE LIVER AND LEUCOCYTHEMIA SUCCESSFULLY TREATED BY ABDOMINAL SECTION.†

BY EMORY LANPHEAR, M. D., PH. D., LL. D , ST. LOUIS, MO.
Formerly Professor of Operative Surgery in the Kansas City Medical College and Professor of the Principles and Practice of Surgery in the St. Louis College of Physicians and Surgeons. Gynecologist to St. Joseph's Sanitarium.

One by one diseases hitherto regarded as belonging to the domain of internal medicine are passing into the realm of surgery, with the happiest results. I wish to call attention to-day to three types of disease never until recently regarded as susceptible of cure by surgical measures, yet which have been either cured or greatly relieved by the abandonment of medical in favor of operative treatment.

ACUTE HEPATITIS CURED BY INCISION AND DRAINAGE.

To open and drain a suppurative hepatitis is generally recognized as the only proper method of treatment. That better results may be obtainable before pus has formed may be inferred from the following case:

A boy of 15 years was ill for some weeks with progressive emaciation, cough (without expectoration), irregular chills and fever. As he seemed about to die the attending physician was discharged and Drs. E. L. Eggers of Creve Coeur and G. C. Eggers of Clayton called. His condition was so critical that a careful examination was scarcely possible, but as the history and his septic condition pointed to pyothorax and as there was absolute flatness up to the third intercostal space of the right side, surgical intervention was believed imperative.

At the time of my examination (very superficial) next morning his pulse was 140 and thready, temperature 96.7 degrees F., pupils widely dilated, respirations shallow and rapid, skin clammy and general condition bad. The right lung gave no evidence of existence on auscultation, there was flatness on percussion as high as the third—perhaps second—interspace extending downwards about three inches below the ribs. Presuming the trouble to be empyema he was hastily prepared for costal resection and the chest opened quickly. The pleura was found normal in color and consistence, but a huge, solid mass occupied the space usual to the lung. A section of the chest wall was thrown back sufficiently large to admit the whole hand which could then be past upward over the top of the mass and toward the mediastinum, which exploration showed the mass to be an enormously enlarged and greatly hardened liver.

The parietal pleura was sewed to the diaphragmatic, encircling an area about six inches across and the abdominal cavity opened thru the diaphragm thus fixt. One hand was past into the belly and careful exploration made. There being no trouble with the gall bladder or ducts and no pus being discoverable by palpation Glisson's cupsule was sutured to the peritoneum covering the under surface of the diaphragm in such manner as to prevent fluid from running into the abdominal cavity. The liver was then incised in six directions, the cuts being made from three to five inches in length and from one to two inches in depth. There was markt venous hemorrhage but it was readily controlled by packing tightly with iodoform gauze, over which large quantities of sublimate gauze and cotton were applied.

The patient rallied nicely from the operation and began to improve from the very first. His cough ceast, temperature rose to 99½ and pulse decreast to 90 within three days. Altho there was a considerable discharge of venous blood for three or four days and of bile for more than a week, there was no infection of the wound and healing was complete and patient out of the house inside of three weeks. The lung promptly expanded as the liver diminisht in size and to-day save for the scar one would never know that the liver or lung had been toucht.

What was the cause of this extraordinary enlargement of the liver, why it extended so far upward instead of toward the pel-

†Read by title at the St. Louis District Medical Society at Washington, Mo., August 23, 1900.

vis, and why the septic symptoms were so markt without the existence of pus I am unable to explain. That treatment by multiple incisions and drainage was followed by instantaneous and rapid improvement is pretty fair proof that the source of infection was in the liver and that a cure was effected by the radical measures adopted.

OPERATION FOR CIRRHOSIS OF THE LIVER.

It has long been noticed that certain cases of cirrhosis of the liver are not attended by the troublesome abdominal dropsy usually found accompanying that disease. In 1896 Mr. Rutherford Morrison, Surgeon to the Royal Infirmary at Newcastle-on-Tyne, and Dr. David Drummond, Physician to the Infirmary, came to the conclusion that this anomalous state of affairs depended upon the fact that in every such patient there existed very vascular adhesions between the parieties and the viscera—thus affording a relief to the obstruction to the portal circulation by way of the large collateral venous channels. Postmortem examinations sustained this theory, to prove which it only remained to effect a cure of ascites due to cirrhosis by the artificial establishment of exactly the same condition of venous communication. An opportunity soon presented and operation was performed. It was indeed a distinct departure in operative surgery—but the result quite justified the boldness of the work. Large veins soon began to appear upon the surface, much the same as in the "caput Medusae" noted in cases where the collateral circulation has become establisht by nature's unaided efforts, and simultaneously the ascites decreast with markt benefit.

Strange as it may seem this remarkable report has attracted but little, if any, attention among the thousands of abdominal surgeons. So far as I can learn I have been the only operator to follow in their footsteps. Only one case has been secured for the experimental work, as follows:

Male, age 56, saloonkeeper, great drinker of whisky, possibly syphilitic, began to suffer from "indigestion" in 1896, the gastric trouble increasing until hematemesis occurred, when he consulted a physician, who examined him and told him he had enlargement of the liver and of the spleen. He became worse and dropsy of the abdomen and feet became markt in 1898, at which time he was repeatedly tapt and large quantities of fluid withdrawn by the doctor who had him under treatment. He consulted with me early in 1899 for the purpose of ascertaining whether or not some means of permanent drainage could be devised, each tapping proving more and more an object of terror to him. At this time—just after withdrawal of the fluid—the liver was quite reduced and the spleen enlarged, there was but slight enlargement of the veins of the abdominal wall and none of the venules of the lower thoracic zone, skin was sallow and slightly icteroid, urine scanty with much urates and some albumen, and the characteristic hepatic facies. After listening to an explanation of what might be possibly accomplisht he consented to operation, preferring anything to the perfect invalidism and the repeated tappings. The abdomen was therefore opened widely by a curved incision parallel with the costal margin and the liver sutured into the wound by splitting Glisson's capsule and sewing it to the upper edge of the parietal incision. The omentum, with its largely dilated venous trunks, was next pulled well into the wound and fixt by seven or eight catgut sutures and permanent drainage provided for by the insertion of iodoform gauze in the most dependent angle of the wound. He rallied nicely. Drainage was at first very free and taxt our ingenuity to prevent infection; but the abdomen was kept open for eighteen days without contamination of the peritoneum. At that time the discharge was regarded as sufficiently diminisht to permit closure of the wound. The edges were therefore freshened and sutured and healing secured promptly. There was some reaccumulation of fluid but not in sufficient quantity to require removal. He improved rapidly in his general condition and was some weeks since reported as at work behind the bar.

ABDOMINAL SECTION FOR LEUCOCYTHEMIA.

From advance sheets of the Medical Brief for September 1 am able to present the following interesting case report from the practice of Dr. Wm. Murrell, Physician to Westminster Hospital, London. I regard it as one of the most important contributions to surgical literature for the year 1900, and so make no apology for quoting it in extenso to this society:

"A girl of 19 was admitted to Westminster Hospital in November, 1899, suffering from anemia and amenorrhea, the first of two years', the last of seven months' duration. She had been an invalid eighteen months, with edema of lower extremities and some ascites; there was oligocythemia and considerable oligochronemia, the red cells numbering 3,830,000 per cubic millimeter, the white cells 3,000 per c. m., chiefly lymphocytes, and finely granular oxyphile polyneuclear leucocytes. Under iron and manganese there was some improvement and she left the hospital December 17, having menstruated slightly.

"A few days after leaving the hospital the patient had a bad sore throat and a cough, unaccompanied by expectoration, which kept her in bed for a fortnight. During this time her legs were swollen and her abdomen was greatly distended. She was readmitted on January 9, 1900, when her temperature was 104 degrees F., and the urine contained much blood and albumin. She had a soft apical systolic murmur conducted outward to the axilla and round to the angle of the scapula. There was no enlargement of the lymphatic glands. Her abdomen at the level of the umbilicus measured 34½ inches. It was resonant in front and on the right side, but on the left there was dullness extending from the groin to the lower margin of the ribs, and laterally from the flanks to within two inches of the umbilicus. Nothing was discovered on rectal examination, and there was no indication of an ovarian cyst. There was a large quantity of fluid in the abdomen, probably confined by adhesions. The temperature during the first week always reacht 101 degrees F. in the evening, but there was no indication of tuberculous disease either in the lungs or in the larynx.

"The condition of blood was carefully determined and the following is the report: 'Blood taken from finger 2 p. m. Drop pale and watery in appearance. Hemoglobin, 65 per cent. Erythrocytes, 3,450,000 per c. m., of good size and shape; leucocytes, 7,000 per c. m., of which 54 per cent are finely granulated oxyphile cells, and 3 per cent are coarsely granular oxyphile cells, the remaining 43 per cent being made up of small cells having a single pale nucleus, which in most cases nearly fills the cell, and is surrounded by a narrow zone of fine granules staining very deeply with methylene blue, and when stained of a deep blue color without purple tinge. For the most part the cells are of about the size of lymphocytes, altho they are totally different in other respects. A few cells have a larger amount of protoplasm, and these might, as far as appearances go, be hyaline leucocytes; against this is the presence in them of fine granules staining with a basic dye such as methylene blue. Upon the whole it is probable that these appearances are not artefacts, and that the cells are basophile cells with fine granules.'

"The patient past daily about 30 ounces of urine, of specific gravity 1028, containing nearly one-half albumin and much blood. Urea, 2.5 per cent. No casts were found. The abdomen increast in size and at last became so distended as to cause the patient considerable discomfort. She was very feeble and her general condition was unsatisfactory.

"On January 27, my colleague, Mr. Walter Spencer, M. D., F. R. C. S., made an incision one and one-half inches in length midway between the umbilicus and the pubes, from which about eight pints of slightly bloodstained fluid were drawn off. On exploration with the hand no disease of the abdominal viscera could be detected. A large glass drainage tube was left in the abdomen and from this there exuded on the 28th, 34 ounces; on the 29th, 25 ounces; on the 30th, 45 ounces, and on the 31st, 30 ounces of bloodstained serous fluid. The tube was withdrawn on February 5 and the wound was allowed to heal. On February 12 the spleen was found to be enlarged, its lower edge being felt two inches below the ribs. The fluid in the abdomen gradually reaccumulated; the urine still contianed large quantities of albumen, and the patient's general condition once more assumed a very unsatisfactory aspect.

"It was now determined to endeavor to establish a collateral circulation, and on February 20 Mr. Spencer attacht a piece of the omentum about two inches square to the anterior abdominal wall by kangaroo stitches. The vessels within the abdomen were congested and the veins were widely distended. On March 14 the superficial abdominal veins were noted to be larger. The wound was practically healed and there was no return of the distention of the abdomen.

"The mitral regurgitant murmur was more markt and in addition there was a loud systolic murmur heard most distinctly over the left second intercostal space and adjacent portion of the sternum. The albumin had disappeared from the urine.

"On April 19 the following report of the patient's blood condition was received: 'Blood taken from finger at 3:30 p. m. Hemoglobin, 65 per cent; erythrocytes, 3,000,000 per cubic millimeter; leucocytes, 4,640 per cubic millimeter; finely granular oxyphile cells, 56 per cent; coarsely granular oxyphile cells, 6 per cent; hyaline cells, 20 per cent, and lymphocytes, 18 per cent. The hemoglobin value of each corpuscle is about 100 per cent. The erythrocytes are irregular in size and shape. Many of the hyaline cells and lymphocytes possess a granular cytoplasm, the granules staining with methylene blue. It is doubtful whether these are basophile cells or whether the appearance is artificial.'

"The patient gradually improved in health and strength and was discharged on April 19. The aortic murmur had disappear-

ed and the mitral murmur was soft and very faint. On July 1 she was reported to be in good health.

"This, I think, is a fresh departure, not only in the treatment of leucocythemia, but in all diseases of this class."

In this case there was great difficulty in arriving at a correct diagnosis, according to Dr. Murrell's account, the original condition being oligocythemia and lymphocythemia, which finally became lymphatic leukemia (lymphocythemia). The blood change was such that the leukocytes increast from 3,000 to 7,000 per c. m.—the ratio to red cells being 1 to 493 instead of the normal 1 to 700. The diminution in red corpuscles was not so markt as in some other instances where no more than 1,000,000 to the c. m. have been found. Dr. Murrell thinks that the alteration in the composition of the blood played an important part in the production of the edema by increasing the permeability of the vessel walls. The ascites was also due to the condition of the hematopoietic system, for as a result of venous stasis transudation from the peritoneum was taking place. The albumin in the urine may have been due to renal cirrhosis consequent on the long-continued interference with nutrition processes. The diagnosis of lymphatic leukemia was arrived at not solely from an examination of the blood, but from a careful consideration of all the circumstances of the case. The differential diagnosis between acute Bright's disease, tubercular peritonitis, ulcerative endocarditis and other possible sources of mischief, was carefully considered. There was no enlargement of the lymphatic glands, but this is by no means a constant symptom in lymphocythemia, such enlargement being much more indicative of lymphadenoma or Hodgkin's disease.

Certainly both the physician and surgeon are to be congratulated upon this case: the one for the accuracy of his diagnosis, the other for the successful establishment of a collateral circulation and thereby relief in a disease heretofore regarded as beyond help—an entirely new departure in treatment.

Much of this same careful, systematic examination of the blood is being made in the city of St. Louis, and we who do surgical work are profiting thereby—subjecting to successful operative treatment cases which would but a short time ago have been sent to the hopeless wards; and refraining from surgical treatment in those instances where the blood examination shows there is no chance of cure.

It is hoped that the report of these cases may lead to further trial of operative treatment in the three kinds of disease mentioned.

SPRAINS OF THE ANKLE JOINT.*

BY EDW. H. OCHSNER, B. S., M. D., CHICAGO, ILL.
Assistant Surgeon at the Augustana Hospital.

Of all traumata sprains are, by far, the most common; and of all joints of the human body the ankle is most often affected—in fact, ankle sprains are probably as numerous as all other sprains combined; and as, if improperly treated, the most disastrous results may sometimes follow this injury, the importance of the subject is apparent.

If one seeks the books he cannot but be imprest with the chaotic condition of the literature of the subject. Thus: a considerable number of authors say, in unmistakable terms, that the only proper treatment is a plaster of paris cast applied immediately after the accident and worn for several weeks. Others, almost as numerous, and equally emphatic, declare that the only correct plan to follow is to subject the affected ankle to active as well as passive motion and massage as soon as seen; and keep it up. A minority of writers recommend cold or hot applications with elevation of the limb and firm bandages; later, plaster of paris cast; and finally, massage and active and passive motion.

Upon thinking the matter over, it seemed strange to me that any one would care to confine himself so rigidly to either of the first two methods, as some of the authors would have one believe that they do. Of the three general methods outlined the third certainly commends itself most highly to one's common sense, and it is the one that I would adopt were it not for the fact that I have seen a method demonstrated which is far superior to it in its results.

The method which I wish to describe comprises practically all of the good features of the three, without any of the objectionable ones. It consists in careful and systematic strapping with rubber adhesive straps. The straps are cut from half to three-quarters of an inch in width and the proper length. The width depends upon the size of the limb. If a small ankle, the straps should be half an inch wide; if a large ankle, they may be three-quarters of an inch, but no wider. Upon this, and upon the accuracy with which they are applied, depends the success of the method. If the straps are too wide, or if they are applied in a haphazard manner, failure is sure to be the result.

The foot is held at slightly less than a right angle and a trifle everted. The former element in the position is observed because it is easier to walk on a painful ankle if it is held slightly in the calcaneum position than if held in the equinous position. The latter element is observed because, as is well known, ankle sprains are usually caused by a sudden inversion of the foot, thus injuring the external ligaments; hence the act of slightly everting the foot relieves the tension of these ligaments and places them at rest. With the foot in this position, one end of a long strap is applied to the inner surface of the foot near its posterior end, brought under the heel and up on the outer posterior surface of the leg to within a few inches of the knee. At the lower end this falls into the depression just posterior to the external malleolus. A shorter strap is now applied by placing one end to the inner surface of the heel near the sole of the foot, then bringing it around over the tendo Achilles to the outer surface of the foot, making it cover the first strap at a right angle and passing along parallel to the under border of the sole of the foot, then over the dorsum to the little toe. Another long strip is now applied, anterior to the first, overlapping it about one-third of its width; then a short one, and so on, alternately, until the outer anterior aspect of the ankle is reacht.

Over all this a hard rolled bandage is now carefully and snugly applied. The patient is directed to lie still with the foot elevated until the warmth of the body has caused the plaster to adhere firmly. In a great majority of instances the patient can walk, with reasonable comfort, after a few hours.

The question that all who have not tried this treatment are prone to ask is, "How is it possible that so simple an appliance, or dressing, can give such excellent results?" I can answer this only in part. Where it is applied before the swelling has taken place, it prevents, or at least limits, the effusion of blood and serum into the joint and surrounding tissues. It partly immobilizes the joint and supplants, in a measure, the lacerated ligaments. It relaxes the muscles and gives the joint a feeling of security.

In older sprains, it supplies the very best kind of massage possible. The massage which a joint gets by the unconscious or subconscious motion under a dressing which exerts uniform pressure, besides being much cheaper and more accessible to all, is infinitely better than the massage which the most experienced masseur can give. This constant massage and motion rapidly dissipates the swelling by causing absorption of the effusion. It quickly and surely relieves the pain. It overcomes the tendency to stiffness. It restores the muscles and ligaments to their original vigor and strength. It reduces the period of treatment from weeks to days. It does all this, while the limb may be used with resanoble comfort and perfect safety from the day the bandage is applied.

*Abstract of paper read before the Illinois State Medical Society, May 17, 1900.

TWO FACTORS IN THE ETIOLOGY OF UTERINE CANCER.

BY THOMAS BARKER EASTMAN, A.B , M.D., INDIANAPOLIS, IND.
Professor of Medical and Surgical Diseases of Women in the Central College of Physicians and Surgeons; Gynecologist to Central Free Dispensary, City Dispensary and City Hospital.

Malignant disease is on the increase. To this assertion reply has heretofore been made that the increase was not real; that it was only apparent; that more careful attention on the part of attendants, greater scope of communication and wider interchange of observation were responsible for the recent appalling statistics and the false assumption that malignant disease is increasingly prevalent. But that the assertion is true is now conceded by all those whose experience and breadth of observation entitles them to be heard upon this subject. Statistics, often inaccurate and unsatisfactory, are not always to be relied upon; but in England and Wales, where most careful statistics are kept, the cancer death-rate has risen from one in five thousand six hundred and forty-six of population in 1840 to one in every one thousand three hundred and six of population in 1896; that is, in fifty years the proportion has increast nearly fivefold. Roswell Park, who stands foremost of those who are deeply investigating the subject of cancer, its cause and frequency, makes the astounding prophecy, a prophecy so astounding that it has been taken up and retierated by the lay press, that if, during the next ten years, the relative death rates are maintained, we shall find that in ten years from now, viz.: in 1910, there will be more deaths in New York State from cancer than from consumption, small pox and typhoid fever combined! Furthermore, cancer is

the only disease which has not yet yielded to the attack which science has waged against disease, but goes steadily on reaping its loathsome harvest undaunted by the best efforts of the century's ablest workers.

Considering these facts, it will perhaps be profitable to take thought upon some of the means by which these horrifying statistics may be modified—so far as the uterus is concerned, dealing with preventive methods rather than those which render possible permanent cures thru early diagnosis and operation. It may be assumed that that organ which is most nearly normal is the least apt to be the seat of malignant invasion, and it, therefore, follows that cancer of the uterus may more properly be prevented by maintaining that organ in the best possible physical condition, or, if the uterus is diseased, by its restoration to health.

There are two conditions which seem to stand in a conspicuous etiological relation to cancer of the uterus, to-wit: Chronic hyperplastic endometritis and neglected lacerations of the cervix.

In these days of abortions, prevented conceptions and unnatural modes of life, glandular endometrites (hyperplastic or hypertrophic) are exceedingly common. Many patients suffering from this disease are treated and cured, it is true; but, on the other hand, a great many cases, giving rise to no intolerable symptoms, never reach competent hands and are left to their fate, in some instances without incident, in others disastrous enough.

When one considers the microscopic appearance in glandular endometritis it is not difficult to believe that malignant disease is the result, thru various changes, of prolonged irritation upon hyperplastic tissue. In glandular endometritis we have a symmetrical hyperplasia, the glands are always increast in number, dilated and often elongated. The variously-sectioned glands seem so multiplied as to almost fill the field. The arrangement of the glands is, however, always typical.

If a circumscribed area of mucosa is much thickened by this glandular hyperplasia, we designate the thickening a "polyp." Now, if this polyp assume proportions entitling it to a place among the neoplasms, we speak of it as a "benign adenoma" or an "adenoma benignum." It will thus be seen that the tissue of an adenoma benignum which has its origin in the endometrium does not differ, except in degree, from the tissue of endometritis hyperplastica; moreover, from adenoma benignum to adenoma malignum is but a short step, the difference being simply that in the latter the gland cavities are lined with several layers of cells and anastomose freely. The lumena wind about maze-like presenting atypical or abnormal gland tissue—a malignant tumor conducting itself clinically as a cancer. To discuss this adenoma malignum and its differentiation from true carcinoma we must enter the field where even the expert pathologist must be at pains to distinguish the exact nature of the neoplasm. If a focus is found which is undergoing true carcinomatous degeneration, or where the typical alveolar figure is demonstrable, the growth is denominated an adenoma carcinomatosum, or, if the polymorphous epithelium filling the alveoli in carcinoma be removed from the center of a few cavities by necrosis or mechanical violence, there is given to the section the appearance of gland tissue, and we speak of it as carcinoma adenomatodes. Hamilton, following the theory advanced by Gouley, holds that carcinoma is preceded by an adenomatous stage. Specimens which are described as adenoma are later seen displaying a markt degree of malignancy and break into the surrounding tissue as does carcinoma. Thus it will be seen that the transition from glandular hyperplastic endometritis thru the various stages to malignancy, whatever be the specific nature of this malignancy, is not a complex one, and altho it cannot be mathematically demonstrated the onus of suspicion is upon it—a suspicion so strong that it were folly to disregard it and permit to go untreated and uncured any case of chronic endometritis which, by proper advice to the patient, may be saved from the danger of cancer.

Conceding all due importance to the fact that carcinoma of the cervix may select this seat on account of the fact that in the embryo the cylindrical epithelium of Mueller's ducts blends with the squamous epithelium of the sinus urogenitalis, such points of meeting between elements of different embryonal origin being predisposed to malignant invasion, I shall proceed to consider what I consider to be pre-eminently the most important factor in etiology of cancer of the cervix, to-wit: the long-neglected, lacerated cervix.

Cancer of the uterine cervix is much more common than cancer of the body; much more common in multiparous than in nulliparous women. Senn states that cancer occurs more frequently in sterile women than in those who have given birth to children. In refutation of this statement, Kelly says that in all his vast experience he has seen but three cases of cancer of the cervix in nulliparous women, and in one of these three cases the cervix had been forcibly dilated. Most of the writers have observed but an exceedingly small proportion of such cases. There is reason to believe that the predominance of malignant diseases varies with locality, and with this fact in mind I addrest a note to several gynecologists of the city, all of them wide in experience, careful in observation. In reply, Dr. Dunning states: "My impressions are that I seldom see a patient with cancer of the uterus who has never been pregnant, and that in not more than ten per cent of cases do I find cancer of the uterus in patients who have not borne children." Dr. Pfaff writes: "I may state that from my case reports and memory I find that I can cite but three instances wherein cancer of the uterus has occurred in the nulliparous women; and from what I have seen in the practice of others I am convinced that a very small percentage, indeed, can be shown to occur in the women who have not borne children." Dr. Frank Ferguson says: "I have been consulted during my professional life by more than one hundred women suffering from carcinoma uteri. Many of these cases I have kept no record of, and I will, therefore, have to speak from memory. It is my impression that all except one gave a history of having borne one or more children." Dr. Joseph Eastman states that he has had only three cases of cancer of the uterus in women who have not borne children.

Laceration of the cervix per se does not constitute the cause of cancer, but unless repaired the erosions, inflammatory infections and the trauma produced undoubtedly encourage malignant degeneration in tissues already predisposed by virtue of their embryological construction. If there be the vestige of accuracy in the theory of Conheim, as added to by Senn, it is unquestionably evident that of those cells engaged in the formation of scar tissue some are lost in the process and remain to furnish the matrix of embryonal cells. Neither the trauma nor the matrix alone can produce malignant degeneration, but trauma brings increast blood supply and local irritation, both of which agents increase and favor tumor growths, and both of which act as an exciting cause in stimulating a pre-existing matrix of embryonic tissue into active proliferation. Senn says: "Every surgeon knows that carcinoma not infrequently develops in scar tissue. It is not difficult to understand that during the healing of a laceration of the cervix new embryonal cells may become buried in the scar tissue in an immature state, and remain in this condition, constituting a tumor-matrix of post-natal origin." If we accept the parasitic theory of cause of cancer, then the increast and irregular blood-supply would furnish an important element in the propagation of the parasite.

Emmet says: "But that epithelial cancer arises frequently from perverted nutrition in the attempt to repair injury, cannot be questioned. Moreover, I believe that nearly all, if not all, cases of epithelioma have their exciting cause or origin in a laceration of the cervix."

Skene claims that "it is quite certain that laceration or erosion of the cervix has a causative influence upon cancroid; I do not mean that laceration will cause it; but with a latent tendency an erosion or laceration will often determine the precise point of eruption of the disease."

Kelly holds that laceration of the cervix stands in the causative relation to cancer of the uterus.

Grant says: "The influence of a persistent chronic irritant in ultimately causing malignant disease is well known."

Edis says: "Injuries inflicted on the cervix druing parturition and inflammatory conditions resulting from these will also explain the tendency to malignant degeneration.

Lapthorn Smith, in the course of an article upon prevention and treatment of cancer of the uterus, says cancer of the cervix almost invariably begins in the angle of a laceration. He maintains that thru the performance of some five thousand trachelorraphies he has greatly reduced the percentage of cancer of the uterus.

Byford holds that where there is a considerable glandular enlargement with erosions and extreme vascularity there is danger of malignant degeneration.

With the adduction of these facts and the quotation of these authors and operators there is demonstrated not only the possibility, but, indeed, the extreme probability of an etiological interdependence between chronic hyperplasia and cancer of the body on the one hand, and between chronic laceration and cancer of the cervix on the other.

The means by which these results may be changed are apparent—cure the conditions! The burden rests largely with the general practitioner. The specialist does not see a large number of cases until the time for preventive measures is past. It devolves upon the former to urge treatment for all cases of endometritis; to make sure after abortions and birth at term that the uterus is so clean that endometritis cannot result. If the cervix is slightly torn, he should make sure that perfect healing is effected by nature by observing the progress of repair at frequent intervals, and if the wound seems indisposed to repair itself, or if the tear is so extensive as to render nature incompetent, it then becomes his duty to insist on such treatment, surgical or

otherwise, as will restore the cervix to its natural condition.

Claim is not made that these disorders constitute the sole cause of malignant disease of the uterus, nor that all hyperplastic endometritis on lacerated cervices bring on malignant disease; but it is maintained that cure of these will so materially reduce the death rate as to demand upon the part of both attending physician and specialist a more careful consideration of their importance and ultimate pathology.

STRICTURE OF THE ESOPHAGUS.

By C. P. THOMAS, M. D., SPOKANE, WASHINGTON.
Surgeon to Sacred Heart Hospital.

This is the malformation or disease most commonly found affecting the esophagus. We have several varieties of constrictions to consider, varying both as to cause and location.

We have in addition to the constriction, especially when located far down in the tube, dilated portions called sacculations or diverticula. This sacculation may be large and is due to the arrest of food at the point of stricture; the parts thus being repeatedly stretcht, form a pouch, which will hold a considerable quantity of food. This was particularly noticeable in the case I shall report.

Of the different kinds of strictures, we have to consider two kinds of cicatricial, viz.: simple and malignant, or so-called organic strictures, and the non-organic, which are in reality not strictures, but simple spasmodic or hysterical contractions of the tube. Narrowing of the tube may also be produced by foreign bodies lodged within its caliber, or by pressure from tumors involving the tissues surrounding it.

Simple cicatricial strictures are the result of ulceration, due either to syhpilis or traumatism, the most common of which is that caused by swallowing corrosive liquids, such as concentrated lye, acids, etc., and this variety is most usually met with in children. It is unusual to have a stricture of the esophagus caused by injuries from without, inasmuch as such injuries usually terminate fatally, because of the important structures surrounding the tube.

Cancerous strictures of the esophagus are usually found in persons over 40 years of age, and are generally of the epitheliomatous variety, and except they be from extension from the larynx or tonsils are usually in the lower third of the tube, while cicatricial strictures from other causes, particularly from caustics, are generally in the upper third for reasons easily understood.

The spasmodic variety of stricture is rare and is usually found as a manifestation of general hysteria, the mere passage of a sound being sufficient to produce a cure. A careful distinction, however, must be made in these cases, and the passage of a sound should never be attempted in malignant strictures, as it will certainly aggravate the malignancy and may cause alarming hemorrhages; and if at all in simple cicatricial strictures, only the gentlest manipulation must be used, since force is likely to make a false passage, perhaps at the bottom of the diverticulum or sacculated portion.

Sudden death caused by the passage of a sound into the mediastinum due to internal hemorrhage has been reported. Mediastinitis or perhaps even a pleuritis has been observed. Such a death, I am informed, occurred a few years ago in the practice of one of my colleagues in this city.

The diagnosis of stricture of the esophagus is not difficult. Inability to swallow food, progressive emaciation, regurgitation of food after swallowing a small portion of it (particularly if the esophagus be dilated above the stricture) are sufficient to make one at least strongly suspect stricture.

Pain is not a very prominent symptom, particularly where no acute ulcerative process is present. An inability to pass a soft, esophageal tube is ample proof and enables one to very accurately locate the position of the highest stricture. If this one be of small caliber, to find and accurately locate others, it will be necessary to resort to some of the operative methods, which will be outlined later, and examine the tube from below upwards.

Once the stricture from simple cicatrization is discovered, it is important that early treatment be resorted to, so that complete stenosis may not result, for then the less dangerous operative methods of treatment cannot be employed, and nothing short of esophagotomy, or esophagectomy, will avail.

The treatments that have been adopted for stricture of the esophagus are simple dilatation with sounds or probes with olive points; esophagotomy, either with or without resection of the strictured portion, followed by end to end anastomosis, or by attaching the tube to the skin, closing the upper segment and feeding thru this opening; gastrostomy either temporary or permanent.

The only justifiable condition in which a permanent gastric fistula should be made would be where complete stenosis existed, perhaps with multiple strictures of the esophagus, preventing the passage of anything from below upwards, after a gastric fistula had been made. Even then it is questionable whether it would not be better to follow the procedure which was adopted by Prof. Bernays of St. Louis viz.: make a fistulous opening in the neck by cutting down upon a sound, which had been past from below as far as the stricture would permit, directing it to the left so as to avoid the trachea before making the incision. Once the esophagus is opened by these means, it might be possible with the aid of a good light to pass something thru the stenosis, and later, by the method I am yet to describe, re-establish the tube in the normal position.

I would, however, recommend most earnestly that a temporary gastric fistula be made, so that we may pass (from below upwards) a strand of silk, to be used for the double purpose of sawing and enlarging the stricture as advised by Abbe and for carrying thru it graduated sizes of bullets or conical shaped pieces of lead.

By these we can dilate the caliber of the stricture sufficiently to permit the passage of food, which will allow the sacculation to disappear, so that eventually sounds may be past with safety from above. Or perhaps we may then be able to introduce successfully a Renver's funnel, thru which the patient can be nourisht at least during its early years, until it is of sufficient age and intelligence to keep the stricture open by passing sounds upon itself.

Owing to the lack of sacculation of the tube below the stricture, it is possible after the instrument has entered the esophagus from below to use considerable force while passing it thru the stricture, since the tendency is then to follow thru the strictured portion rather than to penetrate the surrounding tissues.

The following is a very interesting case which has been under my observation for the past six months, and I take great pleasure in presenting her history:

She was referred to me by Dr. I. L. Magee of Wallace, Ida., and gave the following history: Eigtheen months ago when one year and a half old, she swallowed concentrated lye, which was immediately discovered and prompt medical treatment rendered. She suffered great odema of the tongue and fauces, which did not subside for several days. The stricture, however, was not discovered, I believe, until several months had elapst; and upon my first examination it appeared that nothing past thru it, since directly after swallowing food, even milk, it was regurgitated. She was very thin, wrinkled and old appearing, weighing but 15 pounds, but her intellect was bright, and she was an exceedingly obedient and patient child. Her general condition was so poor from lack of nourishment that I did not then consider any surgical procedure safe, so I placed her in the hospital where after three weeks' patient and skillful nursing, with rectal alimentation, we succeeded in increasing her weight one pound. It was there discovered that she could swallow small quantities of water or diluted malted milk, but could not take cow's milk because its passage was so slow thru the stricture that partial curdling would take place, while it was still retained in the sac, which would prevent its further passage. Repeated gentle attempts at probing were made, but without avail. It was discovered that the stricture was very low down, which is unusual when due to that cause. On January 1 I performed gastrostomy upon her, doing the operation in two stages, waiting about a week after stitching the stomach into the wound before opening it. I then succeeded in passing a small silver probe up the esophagus from the stomach about one inch to the stricture, by the side of which, after many attempts, I succeeded in getting thru the stricture a small urethral filiform bougie. The opening in the stomach was nearly three inches from the esophageal opening, and in order to find the same it was necessary to use Kelly's small cystoscope with a hand mirror. I now tied to one end of the filiform bougie a small strand of silk, and with a long forceps was able to catch the other end of the bougie in the upper portion of the esophagus and drag it thru. To this strand I tied a larger one, but I found it quite difficult to drag this knot thru the stricture, and when the larger silk was in, it completely filled the caliber of the stricture, so that it was impossible for her to swallow even water. We filled the stomach with milk, liquid peptonoids, etc., every two hours, thru the gastric fistula, keeping the hole plugged between times with a rubber tube, and the child began at once to improve. After a few days I secured a number of graduated sizes of shot, beginning with No. 4 bird shot, increasing it up to slightly larger than No. 1 buckshot. I found that the stricture did not exceed half an inch in length and after dragging any sized shot thru one day, the following day that same shot would pass thru easily, while a larger one would be quite difficult to pass the first time, but once it was thru its passage the next day

would be easier and with a little effort one size larger could also be brought thru. On January 25, a little over three weeks from the date of the operation, I was passing a No. 3 buckshot upon her. She was beginning to take soft foods by the mouth and had gained about four pounds in weight. I am now passing a bullet the size of 32 Fr. urethral scale and she is eating solid food. Her weight being 35 pounds. It is my intention to continue this treatment until she is old and large enough to have esophageal bougies past upon her, when I shall let the gastric wound close and keep the stricture open by that method.

(Since writing the above the child has died of illness not caused by the stricture.—C. P. T.)

SPLENECTOMY FOR CONGESTIVE HYPERTROPHY.*

BY J. WESLEY BOVEE, M.D., WASHINGTON, D. C.
Clinical Professor of Gynecology, in Columbian University, Washington.

In 1899 I reported to the Medical News two cases of splenectomy. The first was for a leukocythemic spleen weighing twelve pounds seven ounces; with death from shock. Collapse followed immediately upon removal of the spleen from the abdomen—apparently from too sudden withdrawal of its support to the diaphragm and heart. I now believe it was unjustifiable. The second case was one of enlarged, movable spleen, weighing twenty-eight ounces (four times its normal size), associated with tubercular peritonitis. Altho she was suffering from pulmonary tuberculosis the operation was successful; and the result satisfactory in every way.

When that paper was written I had another patient under observation suffering from enlarged spleen. She was kept nearly three months under observation before operation, being in hospital for fully two months just preceding operation, so that opportunities for carefully studying her condition were afforded. Careful and frequent blood counts were made as well as a complete record of her pulse and temperature, and many other details preceding operation. The changes in her condition subsequent to operation were such as to show how little harm results from extirpation of such a spleen as was this one, and, au contraire, the signal benefit to be derived from its removal—an improvement that was not possible of attainment in any other manner.

I wish to emphasize the importance of observation of splenectomy cases, other than emergency operations, for a considerable time previous to operation in order to be certain of the blood conditions and to attempt to arrive at a conclusion as to the actual cause and character of the splenic condition. This may be materially aided by continuing the study after operation. This is indeed absolutely necessary, as it is now well understood that not all cases of enlarged spleen are amenable to extirpation. Nearly as many cases of splenectomy have ended fatally as have ended successfully, and for the very reason that blood conditions had not been studied before operation; the advantage of such examinations was not realized or understood, and as a result the operation has been many times done in cases in which we know to-day it is absolutely contraindicated.

The usual reason for removal of the spleen is its enlargement, which produces markt distress according to (1) its size; (2) the number and character of adhesions, and (3) the interference with the functions of other organs. The sense of intolerable dragging when the tumor is large often demands its removal, provided other conditions permit it.

This enlargement is usually due to paludal, tubercular or "idiopathic" causes, malignant disease, wandering of the organ, axial rotation, echinococcus and other cysts, chronic congestion, amyloid disease and injuries, such as rupture.

Perhaps the most frequent cause of enlargement of the organ—leucocythemia—is the one condition in which the operation of extirpation should almost never be performed. More than 100 cases of splenectomy for leucocythemia have been reported, and in but three of them was it successful. Such results should be sufficient to put this disease practically beyond the pale of justifiable operation.

Some writers, however, believe the operation is justifiable when the relative proportion of red to white blood cells is not lower than 50 to 1. In some cases, perhaps, this proportion may not be decidedly dangerous; but we must remember the spleen does reach a tremendous size in leucocythemia, often weighing from 20 to 50 pounds, and the adhesions may be formidable. In such cases, certainly, the 50 to 1 rule would be a very dangerous one were it not that in these very markt cases of enlargement the proportion is usually less than the one mentioned. It shows, however, the necessity of knowing the blood conditions. Nor should the proportion of the red and white blood cells be all we should attempt to learn in examination of the blood. It is well known that different varieties of the leucocytes have different functions, and that the relative numbers of these species of them vary very markedly in different specimens of blood, whether taken from the same or different patients. This is certainly an element of great importance. Aside from this, it is of the greatest moment to know the hemoglobin percentage of the blood of a patient suffering from a leucocythemic spleen. If this be not far below the normal, as shown by the present inaccurate instruments, the prognosis of the surgeon is less grave. A blood count of 4,000,000 red and 6,000 to 9,000 white blood cells and a hemoglobin percentage above 70 per cent would ordinarily be considered a safe blood condition for splenectomy. But should the red cells be only 2,500,000 and the white ones increast to above 9,000, and perhaps the hemoglobin percentage be below 70, I would conclude splenectomy, under the most favorable conditions otherwise, would be absolutely interdicted, unless death without operation seemed unavoidable. It will be noticed this blood cell proportion is far above 50 to 1.

There has often been noticed a paludal intoxication accompanying enlargement of the spleen in people exposed to this germ that can only be removed when the spleen has been removed. This seemed to be so certain to Jonnesco and Vanverts that they have strongly recommended splenectomy in markt cases of malarial intoxication that did not yield to ordinary treatment. The effect of splenectomy on the conditions of the blood is often strongly emphasized in malarial hypertrophy. In wandering spleen there is great danger of sudden torsion of the pedicle, with very severe dangerous results or adhesions to other organs, causing markt difficulties and grave dangers.

Splenectomy is not an operation to be lightly entered upon with but slight knowledge of the conditions demanding it and of those absolutely contraindicating it. It is fully as important to know when not to do any operation as when to intervene surgically.

As previously mentioned in the enlarged leucocythemic spleen, the conditions aside from those of the blood must be very good, indeed, to warrant entering on the procedure. If the organ be very large, the result will be less satisfactory, and if the adhesions be severe the result is still more greatly jeopardized. Vanverts found in 30 cases of enlargement with markt adhesions 28 died, while in 35 without adhesions only two died. Profound cachexia is a very dangerous complication. Extreme enlargement of the tumor, especially if it be solid, is a signal disadvantage to the operator and to the patient, as it prevents easy manipulation of the pedicle in operation and tends to greatly add to the shock by the traction and extra manipulation during its removal. Of course the general health of the patient will influence the result. If the patient be one that has always been unhealthy the result will not be so good.

CASE—OPERATION—RECOVERY.

The history of the patient I wish to place on record is as follows: Mrs. S. G., age 39, multipara, was admitted to Columbia Hospital October 24, 1899. All labors normal; youngest child 5 years of age, menopause at 37. Suffered from malaria in 1894, but had no chills. First detected tumor in abdomen in 1897 when in poor health; has been unable to work since.

A few days before entering hospital a small ulcer formed on anterior aspect of leg, followed by two others near it about time of admission. Patient was pale, but in moderate flesh, pulse 116, quite ill. A large mass was found in the abdomen, extending from the diaphragm to brim of pelvis, determined to be spleen. In the first week after admission her temperature ranged from 100 degrees F. to 101 degrees F. Examination of the blood October 27 showed 4,600,000 red blood cells, with 90 per cent hemoglobin. Ulcers were healed by December 18, when she was allowed to sit up; in a few hours surface at points of ulceration was black with evident tendency to slough. Markt petechiae appeared in various parts of body. During her eight weeks in bed her general condition did not improve; and blood examination showed red blood cells 3,500,000, one or two megalocytes and an occasional myelocyte, leucocytes about normal; no malarial parasites found at any examination. It was decided that no improvement would take place under medical treatment. Operation was made December 21. Left kidney was found to be twice its normal size, quite movable, and to the inner side of the hilum of the spleen; it was not disturbed. Four large arteries and a number of smaller ones were encountered in ligating the pedicle—two about the size of the femoral, two others but slightly smaller. Each was ligated separately.

The arteries were each first clampt in two places near the spleen and divided with scissors between these clamps. Ligatures were then placed on the proximal side of them, and, lastly, the veins were similarly treated. Slight hemorrhage occurred

*Abstract of paper read before the Georgia Medical Association, 1900.

from a large blood vessel stump on the spleen side, but, as all the arteries had been previously secured, no harm resulted. It amounted only to a partial drainage of the spleen. Owing to the size and position of the enlarged organ, it was found impossible to first ligate and divide the gastro-splenic ligament as had been planned. To a considerable part of the splenic surface were adhered intestine, omentum, diaphragm and parietal peritoneum. Two quarts of normal salt solution had been thrown under the breasts of the beginning of the operation, and the same amount was left in the peritoneal cavity as the pulse had risen to 136. In the evening her pulse was 114 and temperature 97.4 degrees F. The thermometer remained at about 99 degrees F. until December 25, when it registered 101 degrees—which rise lasted but three days. On January 18, 1900, her blood count showed 4,192,000 and 8,000 white blood cells, with no malarial plasmodium. January 12 she was allowed to sit up and was discharged on January 25. The leg ulcers were healed and her general appearance was much better.

January 23 her weight was 115 pounds. February 5, when she visited the hospital, it was 127. She was much improved in appearance and was bright, cheerful and energetic—in markt contrast to her condition when admitted to hospital. February 8 her blood condition was found to be normal.

Macroscopic as well as microscopic examination showed the case to be one of simple, congestive hypertrophy.

No argument is needed to prove the advisability of splenectomy in a case such as this.

The operation has now a mortality rate of about 13 per cent, and this would be too high were all severe cases of leucocythemia and malignant disease excluded. Severe adhesions and markt hypertrophy of the organ are necessarily potent factors in making a high mortality rate for splenectomy. Hemorrhage and shock are the principal immediate causes of death. The blood vessels of the enlarged spleen are often found to be tremendously large and necessarily the blood loss is excessive in a very short time from even one of them should it occur at all. It is therefore strongly advisable to proceed with the utmost caution in severing and securing these vessels. If forceps are applied before ligation, as was done in this case, the operator should know they are reliable and that they will not unclamp or slip off. Then, too, the vessels should be ligated singly and well back from the cut ends on the central side, with the ligature always passing thru tissue as it passes around the vessel. It should pass thru between the vessels and never thru any of them. This is exceedingly important. For this purpose silk is more reliable than other material because it is most easily knotted without loosening. The arteries should be the first to be secured, as the organ is easily distended and more blood is taken from the circulation if they are allowed to continue pumping blood into the spleen after the veins are tied or clampt. The gastro-splenic ligament should be first clampt and separated, as it permits the spleen to be lifted up and affords better access to the pedicle. If the hypertrophy is markt this preliminary measure will be ofttimes impossible. Under such conditions the first vessels coming to view will have to be the first to be secured and followed by the next coming into view, and this plan continued until all have been secured and separated. Removal of the tumor facilitates application of the ligatures.

Shock is produced by separation of many or dense adhesions, by manipulation of the organ during the process of removal, and by removal from the under side of the diaphragm the pressure to which the lungs and heart, as well as the abdominal viscera, have become accustomed. If the tumor be large, this is of great moment. This may be overcome by leaving a large amount of normal salt solution in the abdominal cavity when the abdomen is closed or by throwing it into the colon.

In every case in which it is possible, as already remarkt, operation should be preceded by a careful study of the history of the case and careful blood analyses made. In my former paper I took occasion to suggest the changes subsequent to operation, varied according to the relative normal condition of the organ removed. It is well known these storms of fever, high pulse rate and other manifestations of markt trophic and psychologic disturbances are often furious in the adult, while in the child or young animal practically absent. In the case of the much altered spleen, such changes in the vicarious functionating economy have begun long before operation, and thus leaves less to be done in that direction after splenectomy. It is probably from that reason that extirpation is not followed by the critical conditions incident to the sudden taxing of the compensating organs following the removal of the normal spleen for rupture, torsion of the pedicle and other conditions.

Splenectomy for malignant disease has not yet been satisfactory. This is due to the disease spreading from the spleen very early, and therefore rapidly appearing in other structures only to cause an early death. For echinococcus and other cysts the operation is very successful, as it has been for rupture of the organ. During the past two years 20 cases have been operated for rupture and but two of them died. Of these fatal cases one was severely mangled and had a rupture of the liver as well as of the spleen.

Splenopexy has been recommended and practist abroad for movable or wandering spleen when the organ was less than three times its normal size. The principle of the operation is to form an extraperitoneal pocket by slitting the peritoneum, placing the spleen behind it after separating it sufficiently and then suturing the flaps over it. It need not be of necessity in the normal region of the spleen. I have had no experience whatever with this operation and for that reason am not in a position to approve or condemn it. However, my impressions are that it is an unwise procedure. There is danger of sloughing of the flaps after the separation and of markt dragging and consequent injury from such suspension of a mass of tissue weighing even no more than 21 ounces.

HYSTERIA—ITS IMPORTANCE TO THE GYNECOLOGIST.*

BY JOHN PUNTON, M.D., KANSAS CITY, MO.
Professor of Diseases of the Nervous System in the University Medical College.

To the gynecologist no subject can be of greater importance than is hysteria. For its extreme antiquity and from its obscure nature it has proven an interesting study as well as a fruitful field for speculation. From the days of Hippocrates to the present it has been the great unsolved problem of neurology and of gynecology.

It is not my purpose to try to solve this problem, but simply to emphasize a few facts relating to its origin which, I fear, are sometimes overlookt. For centuries the dominant idea was that the uterus was the seat of the affection; indeed, the fanciful womb doctrine, taught by Hippocrates and believed by Plato, has reigned supreme until very recently. With but slight variations, the "uterine pathology" served the purposes of so-called medical science for over two thousand years, and even to-day, because of its sexual manifestations, it satisfies the notions of the laity as well as the more ignorant of our profession. Moreover, hysteria was formerly believed to be confined to the female sex, but in recent years it has been discovered that men quite frequently suffer from this disease; and as it occurs at almost any age, and under all conditions and circumstances, it is recognized to be "no respector of persons."

As a result of recent investigation and of our perfected knowledge of the finer structure of the central nervous system, the consensus of opinion among those most competent to speak is that hysteria is a psycho-neurosis or an affection of the higher cerebral centers primarily, with secondary involvement of any one or all of the functions of the nervous systems. Moebius defines it as "a state in which ideas control the body and produce morbid changes in its functions." Lloyd says "it is a psychoneurosis of which the physical symptoms are the most conspicuous, tending to disguise the mental phenomena and to simulate, superficially, the effects of various organic diseases." Gowers recognizes it as "a morbid derangement of the higher cerebral centers or loss of the due balance between certain of the higher functions of the brain, with secondary involvement of the lower centers in the brain, spinal cord and sympathetic system." Hysteria is thus recognized as a true mental disease primarily, with secondary involvement of the various functions of the nervous system; and not a condition dependent upon the uterus or any specific derangement of the internal sexual organs of the female.

Modern research has also demonstrated that pure hysteria is not a false pretense, is not a mere evidence of conceit or knavery on the part of the patient by which a simulation of all kinds of disease occurs, but on the contrary, it is a genuine malady or disease of the higher cerebral centers, having a distinct morbid entity essentially its own, with well-defined clinical characteristics which may, however, be protean in their manifestations. This, therefore, constitutes one of its more important practical elements, since it may seem at one time by its symptoms to indicate disease of the uterus, bladder or rectum, and at another the liver, stomach, kidney or, indeed, any organ or organs of the body. Yet, after all, there may be other manifestations of primary impairment of the higher cerebral centers, with secondary involvement of the nervous mechanism governing these various organs.

The study of physiology clearly teaches us that there is a complex interaction or correllation between all parts of the nervous system, the controlling power of which finds their highest expres-

*Abstract of Paper read at Missouri State Medical Association, May 15, 1900.

sion in the finer cellular mechanism of the brain. All parts of the nervous system, together with its specific functions, are thus found not only to receive but concentrate their highest attributes in nerve centers, which reside in and form part of the encephalon. These higher inhibitory centers are known to control, increase or augment the functional activity of all the lower nerve centers, together with their specific mechanism of the brain, spinal cord, visceral organs and, indeed, all parts of the human organism subject to sympathetic innervation. Hence the latter becomes subservient in point of power and influence to the former, which is also greatly intensified in morbid states of the nervous system. Moreover, these higher inhibitory centers are known to be perfected at different rates and degrees in different individuals, and are the latest of all the functions of the nervous system in acquiring their supreme development. Thus it is easy to understand that any defect in anatomic conformation or physiologic involvement of the functional activity and power of the higher cerebral centers may lead to disorders in the mechanism of any one or all the organs dependent upon their specific influence; especially of the sexual organs. This also offers a rational explanation of the wide and varied range of the symptomatology of hysteria, for its markt feature is ever recognized to be its multiplicity of symptoms and their constant change of degree and form.

However much the symptoms present may point to an organic change in the pelvic contents, if the disease be a true hysteria their source of origin is the same thruout its entire course and duration, and can, as already remarkt, be referred to a primary derangement of the inhibitory centers of the brain, even tho at times there be markt subsequent involvement of the somatic organism.

In the matter of diagnosis this important fact is sometimes overlookt, and because the symptoms are referred, by the patient, to certain special visceral or other organs, their true source is made obscure or misleading, and the effects are taken for the cause and the disease regarded as having its seat in the organs apparently affected. This being particularly true of the anomalous forms of the affection, many a case of hysteria is allowed to mature in both degree and form, even tho the patient be under constant medical care and attention. Hence every community has its chronic hysteric invalids who have possibly been treated by numerous physicians for some indefinite disease of the stomach, liver, bowels, uterus, kidney or other organ for a varying length of time without any apparent relief. In such cases the symptoms undoubtedly were misleading and the effects taken for the cause, so that the treatment adopted was both inappropriate and disappointing. Nor is this strange when I state that, contrary to the popular belief, the diagnosis of hysteria at times constitutes the most difficult problem in practical medicine. Of course, in its more common typical clinical manifestations, nothing is easier, but often it presents itself in anomalous forms that puzzle the most expert diagnostician.

In studying the psychologic aspects of hysteria, we find the organs which constitute the mind, viz.: the intellect, emotion and volition, play an important role in its clinical manifestations and that their morbid action gives rise to an extensive and varied symptomatology which is nothing more nor less than the outward expression of an inward unstable psychical organization. In the normal mental condition, the volitional power in man dominates the intellectual and emotional faculties, but in hysteria this order is reverst, the will becoming subservient to the emotions and intellect. Moreover, in hysteria the nervous system is more or less dominated by ideas as well as by the emotions; hence the definite conception of a symptom may lead to its occurrence. For instance, the idea of a loss of power in certain muscles may later render it impossible for the patient to will the normal movement of a part, thus giving rise to a paralysis. Or, again, a definite pain in a part is conceived or thought of and before very long it may be actually felt by the patient. When ideas are thus conjoined with the emotions, the motive of the patient becomes stronger to yield than to resist the morbid tendency, and the cultivation of symptoms, which at first may be unconscious or involuntary, may then become conscious and intentional. In referring to this, Gowers claims that "those symptoms that are at first merely unresisted may be afterward welcomed, then invited, and at last actually induced or consciously stimulated." This pathogenic influence of ideas is seen in all varieties of hysteria and is exceedingly important from a medical standpoint, for as is well known hysteric persons are extremely susceptible to certain impressions that render them vulnerable to all forms of morbid suggestibility.

Over-solicitation or frequent examination on the part of the physician in his medical inquiries, or the anxiety of friends to visit the patient in order to ascertain the cause and progress of certain symptoms and the possibility of their results, or the development of other morbid states, often unconsciously and unintentionally suggest to the patient certain definite and morbid states that later appear as actualities. The skill and wisdom of the physician is, therefore, displayed in his apparent indifference to the character of the symptoms; for to treat them as they hourly arise would mean at times an endless variety of therapeutics.

If hysteria, as already shown, is a true mental affection involving the physical organism in varying degrees and forms of intensity, it follows that its treatment must necessarily take cognizance of both mind and body. To accomplish this successfully it is essential that the physician is allowed the full care and control of the conduct and life of the patient, and this can only be done by removal of his patient from all sources of irritation and indulgence. That their home life, as a rule, furnishes the most fruitful soil for the cultivation and development of both of these etiologic factors is well recognized. Hence the treatment of hysteria at the home of the patient means absolute failure from the start. Dr. Weir Mitchell, referring to this, says: "It is rare to find hysterics so free from the influence of their surroundings as to make it easy to treat them in their own homes. I have often made the effort to treat them in their own homes, and to isolate them there, but I have rarely done so without promising myself that I would not again complicate my treatment by any such embarrassments." These remarks eminently coincide with my own experience and I have for some time considered it labor in vain to treat such persons without the enforcement of the principle of isolation away from home. The separation of the hysterics from home, friends and relatives is often a difficult task, as they can not perceive the wisdom of such a course, besides the expense. This insistence on perfect isolation they claim has the aspect of harshness, as well as being unnecessary, for "if it is a question of good nursing, we are amply able to provide this at home, as well as every other comfort." I confess that it is not easy to cope with the many excuses offered, but I contend that the successful issue of the case depends very largely upon the rigid enforcement of the principle of isolation. When this is secured one gains the additional advantage of supplying the requisite amount of rest and exercise, besides the full power belonging to suggestion and all other therapeutic measures indicated suitable to the case; as well as the opportunity for carrying out such "local treatment" as the coincident conditions of the pelvic (or other) organs may demand.

But in addition to isolation and the correction of any peripheral irritation which may exist—in other parts of the body as well as the sexual system, there must be a physic treatment directed towards the dissolution of this pathologic mentalization and the substitution in its stead of a healthy mental process. For this purpose the full confidence of the patient must be secured by the physician, a task not always easy; and the peculiar mental traits and characteristics carefully studied, which will also suggest the birth as well as the nature and character of the new idea to be establisht. The essential qualifications of this newly acquired idea should embody the inspiring influence belonging to hope, progress and co-operation, with sufficient force and power as to impress upon the mind of the patient the certainty of ultimate recovery. This plan, therefore, embodies an educational scheme, the special object of which is intended to restore to the will its normal control of emotions and intellect, at the same time teaching the patient to become more self-confident, self-dependent and self-reliant, without which all methods of treatment prove futile.

In the accomplishment of this purpose many agents are employed, the most useful of which perhaps are electricity, massage, hydrotherapy, dietetics and the use of drugs, all of which have their special indications in the treatment of hysteria. As the special uses of these various agents are ably referred to in the text-books on nervous diseases, it is unnecessary for me to enlarge upon them at this time; suffice it to say that the medicinal treatment of hysteria is largely secondary, while surgery is rarely indicated.

Under the head, "An Improved Antiseptic Powder," New England Medical Monthly says: Cheap but reliable substitutes for the expensive proprietary preparations, as well as for iodoform, are always in demand. The following formula is used largely in the hospital wards of a city institution in the treatment of chronic ulcers, suppurating sores and generally as an iodoform substitute:

Salol, powd	32
Sulphate of zinc, powd	48
Benzoin, powd	16
Purified talcum	64
Oil of fennel	1

Mix thoroly until a fine powder is the result, and use freely as any other antiseptic powder.

PERFORATION IN TYPHOID FEVER FROM AN OPERATIVE STANDPOINT, WITH A REPORT OF CASES.

BY GWILYM G. DAVIS, M. D., M. R. C. S. ENG., PHILADELPHIA, PA.
Assistant Professor of Applied Anatomy, University of Pennsylvania; Surgeon to the Episcopal, St. Joseph and Orthopedic Hospitals.

The subject of operating for perforations in typhoid fever is still so recent that additional experiences and data are desirable to enable us to formulate rules of procedure. The following cases are, therefore, important:

During the winter of 1899, while on duty in the surgical wards of the Episcopal Hospital, I was called by my medical colleague, Dr. D. J. Milton Miller, to see some cases of suspected typhoid perforation which were under his care. Considerable difficulty was experienced in making a diagnosis so early as to justify one in performing an operation. Some of the suspected cases recovered and others died. Finally, a post-mortem examination was obtained in one of them, and perforation of the bowel was found. This caused us to resolve that should another suspicious case arise we would not wait until the symptoms had demonstrated the positive presence of the lesion, but would operate before fatal collapse had set in. The first case that arose was the following:

LAPAROTOMY DURING TYPHOID—NO PERFORATION FOUND—RECOVERY.

Case I.—George R——, a well-built man of thirty-three years, was admitted with the following history: His illness began three weeks before, with extreme weakness and indisposition. He felt all the time as if he would like to lie down. He had had epistaxis, followed by headache. At first he cought, and there was considerable abdominal pain. He vomited after taking milk, and his mouth and throat felt dry. On admission his expression was dull, tongue moderately coated and dry, and red at the edges. The heart and lungs were normal. Pulse small; spleen enlarged; abdomen slightly distended, and there was tenderness in the right iliac fossa. There were a few spots on the abdomen, and Widal's reaction was positive. On the fourth day after admission he complained of a sudden attack of pain below the umbilicus; this was followed by distension. The pain was so severe that he moaned constantly and morphine was necessary to quiet him. There was impaired resonance in the right iliac region, which disappeared when he was turned on his side. The pulse became more rapid and nervous symptoms developt. His temperature on admission was 103.8 degrees; on the second day 103 degrees; on the third day 103.6 degrees; on the fourth day 104.4 degrees. On this, the day of operation, his pulse was 135, his temperature 104.4 degrees and respiration 28.

Operation.—An oblique incision was made over the right iliac fossa. Evidences of mild peritonitis were found. There was an excess of abnormal fluid, and the intestines were highly injected. The typhoid ulcers could be seen thru the coats of the bowel as injected spots, one-half to three-quarters of an inch in size; they were thickened. No perforation was found. The abdomen was flusht thoroly with a couple gallons of hot saline solution and the wound closed without drainage. He reacted nicely; the temperature being 100 degrees, pulse 120 and respiration 24. He vomited a slight amount on the second day. His temperature, which had been ranging every day from 103 to 104.4 degrees, never went above 102 degrees. The tympany of the abdomen disappeared on the third day and did not return. His bowels moved normally. Twenty-seven days after the operation his temperature was normal, his wound healed and he was placed on soft diet, and was finally discharged cured.

SMALL PERFORATION—FREE PUS IN PERITONEAL CAVITY—RECOVERY.

Case II.—Frederick G——, aged 26, was admitted to the Episcopal Hospital on June 7, 1899, having been sick with typhoid fever for five weeks. He was treated for ten days with cold baths when his temperature went above 102 degrees. On the 17th, at 6:30 a. m., he was taken with sudden pain and tenderness in the right iliac region. There was no vomiting, but his temperature, which had been from 101 to 102 degrees, fell to 97 degrees. There was some tympanites and he was sweating freely.

Operation.—The operation was performed at 5 p. m., ten and a half hours after the first symptoms of perforation. At this time his temperature was 104.4 degrees, respiration 28, pulse 135. An oblique incision was made about three centimeters to the inner side of the anterior superior iliac spine. Free pus welled up as soon as the peritoneum was opened. This was washt away and the intestine drawn out. A perforation, three millimeters in diameter, was found ten centimeters (four inches) above the ileo-cecal valve. A purse-string suture was placed around the opening, and the entire ulcer inverted in a longitudinal fold and sewed over with four mattress sutures. The abdomen was then thoroly irrigated, the purulent lymph wiped away, a rubber tube and gauze drainage inserted, and the remainder of the wound closed. His temperature after the operation fell to 100.4 degrees.

On the next day, the 18th, the lowest temperature was 97.6 degrees and highest 101.8 degrees. On the third day the highest temperature was 102 degrees. On the fourth the highest temperature was 102.2 degrees, and the drainage tube was removed. On the sixth day the lowest temperature was 97.6 and highest 99.8 degrees. After that the temperature was normal for six days, and later fluctuated. It was usually below 101 degrees, but on one occasion it rose to 103 degrees. Recovery was otherwise uneventful.

TWO PERFORATIONS, ONE OF THE ILEUM AND THE OTHER OF THE APPENDIX—OPERATION—DEATH.

Case III.—Grace K——, aged 29 years, was admitted to the medical ward with the following history: She was married four years ago and had two children. Since the birth of the last one, two years ago, she began to lose flesh and strength. There was no cough or expectoration. She felt poorly for two weeks previous to entrance into the hospital. She had diarrhea, headache, feeling of languor and loss of appetite. There was no epistaxis. Five days previous to admission she had a slight chill and went to bed. She was of spare build, face not flusht, on admission eyes bright and expression good. The tongue was coated and tremulous. There was slight tympanites and distension. There was a little tenderness and gurgling in the right iliac region. Spleen was not palpable, but was enlarged on percussion. One suspicious rose spot was seen. Lungs and heart negative. Temperature 102 degrees, pulse 120, respiration 26. Examination of urine showed specific gravity to be 1018; a trace of albumen, a few granular casts and a slight amount of pus and mucus. On the second day after admission numerous spots were found. On the sixth she had a slight hemorrhage and was given a quart of normal salt solution by the bowel. On the seventh day, early in the morning, she had two more slight hemorrhages. At 3 p. m. she lost fifteen ounces of blood; at 3:30 p. m., six to seven ounces; at 4 p. m., five to six ounces. At 9:30 p. m. she had a large hemorrhage, and at 10:30 p. m. another large one. At 11:15 p. m. she had a slight one, and at 1:45 a. m. another large one. On the eighth day she had two large hemorrhages, one of seventeen ounces and one of sixteen ounces. On the ninth day she past blood mixt with fecal matter. She was given gelatin solution by rectum, and one pint of normal salt solution under the skin. On the tenth day she was seized with pain, of a stinging character, in the abdomen, between the umbilicus and the pubes. There was tenderness in the pubic and left iliac region, but none in the right. The abdomen was slightly distended. There was no dullness in the flanks, and no vomiting. Tongue dry, fissured and coated. The pain began at 9 o'clock in the morning. At 1 o'clock the temperature had risen from 101 to 105 degrees, and her pluse was 130. At 10:30 p. m. the temperature was 101.3 degrees and the pulse had fallen to 98. On the next day, January 17, the abdomen was quite distended, and there was pain and tenderness everywhere, but it was especially severe in the right iliac fossa. At 9 p. m. she began to vomit large quantities of brownish liquid; later she vomited twice green-colored liquid.

Operation was performed the same evening at 1:30 o'clock. Ether was administered, and an incision, 7.5 centimeters (three inches) long, was made over the region of the appendix. The appendix was found perforated and it was ligated and removed. Intestinal contents were oozing thru the opening. Another small perforation was found over a foot above the ileo-cecal valve, thru which the intestinal contents were escaping. This was closed with mattress sutures. There was a considerable amount of liquid pus and liquid intestinal contents in the abdominal cavity. The abdomen was thoroly irrigated with hot salt solution, and the site of the perforations drained with both a rubber tube and gauze.

The next morning her general condition seemed to improve, her pulse was better and there was no distension of the abdomen. There was only a slight amount of pain, and she lookt better than before the operation. There was no vomiting. She past a fair night, with no pain or distension, and no vomiting. On the following day she appeared weaker, vomited at 11 a. m., and died at 1:30 a. m., just thirty-six hours after the operation.

Post-mortem examination showed the parietal peritoneum glistening, except at the site of operation, where there was a plastic peritonitis. There was a small amount of turbid lymph in the peritoneal cavity. One perforation (sutured) was found, sixteen inches above the ileo-cecal valve. The ascending, transverse and part of the descending colon were the seat of numerous ulcers, all having thrown off their sloughs and some extending down to the peritoneum. Those nearest the ileo-cecal valve were the most markt. The last eighteen inches of the small in-

testine contained ulcers, which were fewer in number than in the large intestine; they were not large in size.

PERFORATION—DEATH—NO OPERATION—LESSON FROM CASE.

Case IV.—Frank R. L., aged about 32; had been ailing and troubled with diarrhea some time before he visited his doctor, who prescribed for him. On his return, three days later, his temperature was found to be 103.5 degrees, and he presented all the symptoms of typhoid fever. He was ordered to bed, and the next day his diarrhea was better, but his temperature was 103 degrees, and his pulse high. The following day, Friday, he felt good and wanted to eat. He slept well and typhoid spots had made their appearance. On Saturday his physician, Dr. Klemm, saw him at 5 p. m. His wife said that he started to vomit at 9 p. m. the previous evening, being seized at the same time with acute pain in the abdomen. When the doctor saw him he lookt like a patient with peritonitis; his expression was anxious; his abdomen was slightly tympanitic and tender; pulse 140 and weak; temperature about normal, when at the same time on the previous day it had been 104 degrees. He was sweating profusely and felt cold.

On his arrival at the hospital a few hours later his expression was anxious, he was very restless, his face was flusht and tongue coated. The abdomen was tympanitic and distended, the splenic dullness being absent. He vomited black, watery matter several times. The pulse was very rapid, 120 to 180, and weak, and did not respond to stimulation. He was evidently in a state of collapse. Operation was not advised, and he died three hours later.

On post-mortem examination diffuse peritonitis was found, with a perforation about the size of a lead pencil, sixteen inches above the ileo-cecal valve. There were only three or four typhoid ulcers. The mesenteric glands were enlarged.

It is admitted that, unless a patient is in extremis, perforation is an indication for operation; therefore, the diagnosis of this occurrence is of vital importance. Sometimes it is easy. A sudden aggravation of the abdominal symptoms, accompanied by a decided fall of temperature, I regard as indicating perforation. Leukocytosis is a confirmatory sign. Case II. is a good example. He was taken with sudden pain and tenderness in the right iliac region, and his temperature fell to 97 degrees. Those cases in which complications exist, or where a sudden drop in temperature does not take place, are more difficult to diagnose. Case III. had repeated hemorrhages. On the tenth day after admission to the hospital she was seized with pain in the abdomen, of a stinging character, at 9 o'clock a. m. There was tenderness in the pubic and left iliac region, but none in the right. The abdomen was slightly distended. No dullness in flanks and no vomiting. Her temperature was 101 degrees. These symptoms were hardly sufficient to justify a diagnosis of perforation, yet there probably was one at this time. Four hours later, instead of a fall, there was a rise to 105 degrees, followed by a fall during the next nine hours to 101.3 degrees. On the following day, however, the abdomen became distended, the pain and tenderness became diffused and she began vomiting. The second perforation had probably occurred, and it was then that she was transferred to the surgical ward and operation proceeded with. Here the temperature was useless as a guide, and the abdominal symptoms decided the diagnosis. The diagnosis of perforation in Case IV. was made when the attending physician saw him, which was twenty hours after the onset of acute abdominal pain. At that time his temperature had fallen from 104 to 98 degrees, and the patient was in collapse. In three other cases of which I have records the first was said to have presented no signs of perforation except vomiting on the night before death, which occurred at noon. The temperature at 4 a. m. had fallen to 97 degrees. The second case, twenty-four hours before death, had pain in the abdomen, followed by tympanites, but no markt change in temperature. The third case, that of a girl aged 11 years, had four hemorrhages on one day, followed by distension of the abdomen. There was some rigidity, but no markt tenderness. During the next four days the tenderness and rigidity were more markt. About this time I saw the patient, in consultation with Dr. D. J. Milton Miller, and advised against operating, altho, while I thought there might be a perforation present, it did not seem to be following the acute course of that affection. As a matter of fact, a perforation had taken place at this time, but the opening was closed by omentum and the patient recovered from this attack. About two weeks later she had a relapse. She complained of pain in the abdomen, with distension as before. As she had recovered from a previous attack similar to this one, I again advised waiting, but later her temperature fell from 103 to 99.8 degrees, and collapse supervened, and she died. These facts go to show that the most reliable guide to the occurrence of perforation is sudden increase in the abdominal symptoms, especially of pain. This increase is apt to precede the fall in temperature, but may accompany it. They are not apt to begin after a fall; that is, if a fall of temperature is the first sign noted, inquiry will usually show that it has been preceded by abdominal symptoms. It should be remembered that a drop in temperature is a sign of hemorrhage, as well as of perforation, but in that case the increase in the abdominal symptoms is apt to be lacking. One of the most constant signs of perforation is a sudden attack of pain which is apt to be referred to the neighborhood of the umbilicus rather than to the right iliac region. This is explained by the fact that the perforation is often a foot or more above the ileo-cecal valve. As shown in Case I., sudden pain is not an infallible sign, for this patient had it so severe as to require morphine, yet no perforation was present. Dullness in the flank may be due to free liquid in the peritoneal cavity, as in Case I., or, as I have seen in other cases, to a plastic peritonitis matting the intestines together. It is far more often absent than present. Another question to be solved is as to whether there is a distinct pre-perforative stage. As yet I am not inclined to admit that there is. It is just as reasonable to suppose that the perforation has already occurred, but that the disturbance is too slight to cause markt symptoms to appear at once. Pain is usually the first symptom that anything wrong has occurred, or is about to occur, and I believe it to be due to perforation with its accompanying extravasation and infection. I do not deny that there may be certain definite symptoms which may precede those of perforation, but as far as we know at present they are too indefinite to justify one in using what may be regarded as such as a basis for operative procedures.

Another subject yet to be elucidated relates to the proper time for operation. My experience and belief is that there are few cases in which this question will call for consideration. My impression is that when true shock sets in it is practically collapse, and deepens to death. As Dr. Keen has pointed out, depression may occur at the primary onset of the symptoms, as in Case II., where the temperature fell to 97 degrees and the patient was leaking. Also in Case III., where four hours after the onset of pain the temperature was 105 degrees, and pulse 130, while nine hours later the pulse was only 98 and the temperature was 101.3 degrees. But at this time it is the question of diagnosis rather than operation that is demanding attention. Patients do not usually die during this first depression, and if it can be recognized as such then, it would be wise to wait a few hours for reaction. The shock, however, which is usually recognized, is not that of onset, but that of collapse, and usually deepens into death in a few hours. In Case IV. the patient was in shock when seen by his physician twenty hours after the onset of the symptoms, and he died in seven hours. Therefore, when a surgeon is called, he must be prepared to operate at once, or not at all.

The effect of the operation on the patient as to how they stand it and how it influences the subsequent course of the disease is a most interesting question. My belief is that they stand it remarkably well—this is contrary to what I had expected. In none of the three operative cases was the post-operative shock severe. They all recovered from the operation with even less disturbance than the general run of operative cases. Case I. was brought to the operation with a temperature of 104.4 degrees, pulse 135, and respiration 28. After the operation he reacted nicely, his temperature being 100 degrees, pulse 120 and respiration 24. His temperature, which had been ranging from 103 to 104.4 degrees every day, never went above 102 degrees. The tympany of the abdomen disappeared on the third day, and did not return; his bowels moved naturally and his temperature became normal on the twenty-seventh day.

The operation had apparently cured a mild peritonitis and practical convalescence at once set in. In Case II. the temperature was 104.4 degrees, pulse 135 and respiration 28. After the operation his temperature fell to 100.4 degrees. On the next day his temperature was 97.6 to 101.8; on the third day, 102.2 degrees, and on the sixth day the lowest temperature was 97.6 degrees and highest 99.8 degrees. After that it was normal for six days, and then usually below 101 degrees, rising on one occasion only to 103 degrees. Previous to operation his temperature went repeatedly above 102 degrees, at which temperature baths were given. In Case III., as can be seen from the history already given, the patient was in collapse and had a running pulse, but she reacted in less than two hours, and the next morning she seemed much improved; her pulse was better, there was no distension and only very slight pain. Her second night was past with no pain, distension or vomiting, but the following morning she got weaker, and died thirty-six hours after operation. All three of these cases seemed to be positively benefited by the operation. It seemed to start the first two at once on the road to convalescence, and the third lived longer than she would have done without it.

As regards the time necessary for the operation, about twenty-five minutes were consumed in these cases, but it will vary, of course, according to the quickness with which the perforation is found and closed. In view of there being many ulcers, it is probably better practice to examine and see that there is not a second perforation before closing the abdomen. In contradistinction to my practice in other cases, in operating for typhoid perforation, I would flush the abdomen thoroly with hot saline solution.

I prefer to make the incision obliquely an inch to the inner side of the anterior superior spine of the ilium. An incision thru the linea semilunaris is apt to cut the deep episgastic artery. The cecum usually presents at once in the wound, and by drawing it out the ileum follows and can be examined from the ileocecal valve upward for perforation.

SUMMARY.

The diagnosis of perforation is not always easy. A decided and sudden increase, especially of pain, in the abdominal symptoms associated with an abrupt fall of temperature is diagnostic of perforation.

Leukocytosis is a confirmatory sign.

Hemorrhage is accompanied with a sudden fall of temperature, but not by a sudden increase of abdominal symptoms.

Dullness in the right iliac region is not to be expected in cases of perforation.

Localized impairment of resonance may be due to free abdominal fluid; change of position causes it to disappear.

Localized pain and dullness may be due to a plastic peritonitis around the site of perforation. This may be observed perhaps in one case in ten, possibly one in five.

It is impossible to recognize that a perforation is about to occur. It is not necessary to operate before a perforation occurs, but it is necessary to operate before collapse is markt.

Typhoid fever patients when not in total collapse bear operation much better than was formerly expected.

Patients operated on in markt collapse are liable to die on the table. I know of some such cases.

Washing out the abdominal cavity with hot normal salt solution, even if no perforation is present, seems to improve the condition of the patient at the time of operation, and to favorably influence the subsequent course of the disease.

Operate as soon as the diagnosis of perforation is made.

It is less dangerous for the patient to run the risk of having an operation done during the first period of depression than to wait and run the risk of having collapse preclude all operative measures.

In operating incise as for appendicitis, and not in the median or semi-lunar line.

WIRING PATELLA, EXCISION OF UPPER JAW, REMOVAL OF APPENDIX.

BY HENRY A. BARR, M. D., BEAUMONT, TEX.
Chief Surgeon, Sisters' Hospital, Beaumont, Texas, formerly Resident Physician John Sealy Hospital, Galveston, Texas.

Case I.—W. H., male, white, nativity Germany; occupation, engineer; aged 30. While walking on the slippery pavement one foot slipped forward, he fell, striking the left knee on a fragment of loose brick. There was severe pain felt at once, and on arriving he discovered that he was only able to walk with difficulty, each attempt to make a step producing intense pain. Patient was able to flex the limb, but could not extend it when trying to bring the leg forward, and could only make the step by combined action from the hip. With difficulty and not without suffering a great deal of pain he succeeded in walking to his room, two blocks away, when immediately he went to bed. By reason of the fact that he was able to walk at all the patient decided that there was no fracture or dislocation, hence no physician was called, and for the time being nothing was done except rest in bed and hot applications, consisting of cloths wrung out of hot water, applied to the limb at regular intervals. As would be expected, from the nature of the injury, the limb gradually became worse, the knee became very much swollen and exceedingly painful.

The fourth day after receiving the injury, patient was admitted to the Sisters' Hospital, Beaumont, Tex., and the following conditions found to exist: Knee, very much swollen, excessively painful and tender to touch, and according to patient's statement he was suffering most excruciating pains, which rendered an examination of the injured part very difficult, the least touch or movement of the limb causing the patient to cry out most vigorously. From the history given I felt sure as to the nature of the injury, but wisht to confirm my suspected diagnosis by careful palpation and manipulation, so an opiate was given and he was soon in a condition to allow me to make a careful examination of the injured part. The patella was found to be broken transversely, both fragments being about of equal size, also a small fragment being broken off of the upper portion, the two fragments, upper and lower, being separated by about two inches. The condition existing rendered it impossible to bring the broken parts into proper apposition, and besides the joint cavity was filled with exudate of blood and bone matter from the fractured surfaces. The idea of wiring at once suggested itself to me, but I hesitated because the reports of so many of the "foremost" and most skillful surgeons, who have done this operation, state—almost without exception—that results are anything but favorable. In this case, considering the length of time that had elapst since the injury had been received, the great distance between the fragments and the profuse exudate into the joint cavity, I decided to cut down and "wire" the broken parts and thoroly cleanse the joint cavity of the accumulated exudate. Arriving at this decision, preparations for the operation were immediately begun. From start to finish the most rigorous and careful aseptic and antiseptic precautions were taken, every point being carefully observed in order to make the technic as nearly perfect as possible. With the assistance of Drs. Goldstein and Frye, the operation was done some three hours after patient's admittance to the hospital.

I made an incision about two and one-half inches in length, making the middle of the incision as nearly as possible equidistant from the two broken surfaces. On reaching the fragments the broken ends were found covered, at least one-fourth of an inch in thickness, with clotted blood and bone exudate, the consistency of which was much more firm than clotted blood, the constituents of this formation being, of course, the exudate from the broken ends of the fragments, consisting of blood and bone matter. This was all scraped off the fractured ends with a bone curette and the broken surfaces well freshened by vigorous scraping. The exudate into the joint was all removed and the joint cavity thoroly flusht out with a boracic acid solution. The fragments were now drawn into apposition and kangaroo tendon instead of silver wire used to hold them in position. The tendon was not past thru the bony part of the fragments, but thru their tendinous attachments above and below. Counter openings were now made on the inner and outer side of joint, and drainage tube inserted, together with another tube in the original incision. This insured absolutely free drainage. The incision was now closed with silkworm gut sutures, and dressings—including a posterior splint—applied. The patient's recovery so far as healing of the parts were concerned, was rapid and uninterrupted, the swelling in the joint rapidly subsided and very little pain was complained of during the entire convalescence. The posterior splint was kept on for ten weeks, when it was removed and the limb put in plaster of paris, this dressing preventing the patient from flexing the leg. Four months after the operation the patient had almost fully recovered the use of the injured limb, being able to walk easily, and with only the assistance of a cane. There was never at any time any anchylosis to speak of, massage being used after removal of the plaster of paris dressing. Patient is still under my observation, tho his recovery is complete, as he is now able to walk easily without the assistance of crutch or cane and is able to do ordinary work without pain or inconvenience whatsoever.

[*To be continued.*]

INJURIES OF THE SCALP.

BY H. C. FAIRBROTHER, M. D., EAST ST. LOUIS, ILL.
Professor of Railway Surgery in the Marion Sims College of Medicine, St. Louis.

The peculiar anatomical structure of the scalp: the free gliding over each other of skin, fascia, areolar tissue and muscular aponeurosis, its normal oily condition, its hairy covering and its usual state of uncleanliness—render its injuries of such a nature as to require consideration separate from that of other wounds.

Scalp wounds may be either contused, contused and lacerated, incised or punctured. Contused wounds of the scalp, tho of frequent occurrence, are of little surgical importance. The free vascular supply, together with the very loose and open areolar tissue and the bony background, render the effects of these contusions more immediate and of greater extent, and of more transient character, than elsewhere. Within a space of two or three minutes great tumefaction may occur. Persons are often frightened at the rapid forming of large knots upon the scalp following comparatively slight blows. These lumps often present a feeling of fluctuation, but when cut down upon no free fluid will escape. The entire swelling will be found due to the injection of the areolar tissue. The skin may even be diminisht in thickness. In some instances the swelling will be found circular in form and deprest in the center like an air cushion, due to the

spreading in all directions of the areolar tissue from the point of contusion. The contused wounds, when not attended by laceration or fracture, will soon be recovered from without treatment, but some of the cooling applications are often grateful and helpful.

Contused and lacerated wounds of the scalp are the most frequent in occurrence, the most grave in character and the most difficult in treatment. In railroad surgery they are practically the only kind met with. They are caused chiefly by falls from cars, by low bridges, by getting off cars while in too rapid motion, or by being struck by cars and knockt down, the head striking upon the cinder or gravel roadbed, a tie or some other object. These wounds are sometimes very extensive in character, even amounting to "scalping" half the cranium, and are often seriously complicated by the cinders, dirt, splinters, etc., with which they are so apt to be filled. In some cases the bone is found to be fractured, especially about the orbits, and numerous spiculae driven into the surrounding tissues. Considerable time often elapses before treatment is possible, which lessens the healing power of the uprooted fragment of scalp and increases the risk of infection. And the location of these wounds being such as to be beyond the view of the patient, they are often examined with his fingers, which also is certain to mean more or less infection.

Incised wounds are of the simplest nature. They usually heal by the first intention, in spite of the dirt. If the parts are instantly coaptated, there is "immediate" union, which is also almost immediate with regard to time, as two or three hours are often sufficient for the lips of a scalp wound to become quite firmly adherent. The risk of infection in these cases arises from the uncleanliness of the knives used and the driving of hairs into the wounds, but there is usually sufficient hemorrhage following to remove most of the danger from these sources.

Punctured wounds of the scalp differ from punctured wounds of other parts of the body on account of the tissues of the scalp gliding over each other and frequently shutting off the outlet. Thus serum or blood or pus may be penned up in the bottom of one of these wounds by having its means of escape cut off and serious consequences follow.

The complications which sometimes attend open wounds of the scalp are the following: Simple inflammation with healthy suppuration, simple infection, erysipelatous infection, gangrene and a state of the wound which does not come under any of these heads and which is characterized by simple absence of healing power. Tho some of these wounds may escape inflammation to the extent of the formation of much pus, there are none which escape it altogether. In the great majority of them, and especially in those where the scalp is uplifted from the cranium and cinders and other dirt injected, suppurative inflammation is inevitable. But this pus usually has little surgical significance, it being only an effort of nature to complete what the surgeon has left undone in the way of cleanliness. The writer does not belong to that happy class of surgeons who have become so estranged from pus as to have forgotten its features.

A wound of the scalp, like that upon any other part of the body, may become infected, but the scalp wound for the reasons above stated is the most liable to infection, both of the simple and erysipelatous variety. It is considered fashionable to speak of infection as due to some fault in the technic of operation, dressing or after-dressings, but such statements are often misleading and sometimes damaging, especially when made in courts of justice. In accidental surgery there nearly always exist causes of infection which are unavoidable. The wound may become infected by foreign bodies containing germs being buried in the tissues entirely beyond the reach of discovery. In other cases the infecting germs enter the wound before it reaches the hands of the surgeon and take up their abode in nooks and corners, so hidden away that no antiseptic will reach them. Thus the worst forms of sepsis may occur without any fault whatever in technic.

Erysipelatous infection, it is generally conceded, is more frequently met with in the wounds of the scalp than in those of any other part. This disease is readily distinguisht from simple inflammation or simple infection by its chief site of attack being the skin, and by its specific manner of spreading. It has a special inclination to extend to the eyelids and to one or both sides of the face, and, like cellulitis, is attended with a rise of temperature preceded by a chill.

The retrograde action of scalp wounds is a complication sometimes met with. For many days, or even weeks, the wound will remain at a standstill. The lips will become retracted, assume a pale or bluish color, become puffy and exude an ichorous discharge. This condition will usually be found due to a foreign body imbedded beneath the scalp near the wound, but it may also be at considerable distance from the point of entrance. A piece of cinder may be driven into the wound at the time of accident and pass beneath the fascia into the loose areolar tissue and along the smooth surface of the aponeurosis of the occipitofrontalis, and possess such a contour that the movements of the scalp cause it to recede from the open wound rather than approach it; yet on account of some constitutional peculiarity, perhaps, fail to set up suppurative inflammation, but still maintain such a degree of irritation as to completely thwart the healing process. When such a body is discovered and removed, either thru the open wound or by being cut down upon, healthy action is immediately resumed.

The proper treatment of scalp wounds requires the greatest care and patience and as much skill as can be had. Time is no object. This work is not done by the watch. Antisepsis is an essential quality. Proper preparation is all important. If possible, the patient should be removed to a modern dressing room, either in a hospital or office of a surgeon, where sterilized antiseptic water, curved basin, good razor and all other suitable appliances are at hand; absolute antiseptic cleanliness of hands and instruments and field of injury and all materials used in dressing being the important points of this delicate work.

The chief interest centers upon the cleansing of the wound, and in this, the most difficult operation is usually the removal of foreign bodies. If the wound is found to be filled with cinders, as is frequently the case in railroad injuries, a tedious work confronts the surgeon. These cinders are not confined to the open pocket of the uplifted scalp, but are deeply ground into the skin, fascia, areolar tissue, muscle and periosteum. Varying in size from a pea to the finest grains of powder, this substance fairly saturates the wounded area of scalp, and tho great time may be used in this cleansing process and all perceptible grains removed, still the staining effect of the powder may remain. If the wound be upon the forehead, bridge of nose or any other exposed surface, the disfigurement may be great and permanent, and notwithstanding every effort and the greatest skill has been used, still an unjust reflection upon the operator may remain.

The best instrument for the removal of cinders and other like material is the curet of different sizes. This, aided by a forcible stream of warm antiseptic water and the use of ample time, is usually successful in the removal of all grains, but powder and its stains can only be removed by cutting away the tissue itself, which, in many cases, would produce a scar of greater damage than the discoloration. For the purpose of removing cinder or powder stain from the eyeball, especially the sclerotic, the tissue may be scraped off to a considerable depth and leave no perceptible cicatrix, but upon the forehead or nose the skin cannot be removed without a remaining scar. Good results may be often obtained in the removal of cinder and powder stains from the scalp or face by free cantharidal vesication. The epidermis being elevated, the serum washes the staining material out of the cutis into the vesicle.

A necessary adjunct to the proper cleaning and treatment of these wounds, when upon the hairy scalp, is the clean shaving of the field of dressing, usually about one-half inch on either side of the wound, unless the wound be very slight, when this may be omitted.

The suturing of scalp wounds is as necessary, and attended with as little danger, as the suturing of any other wounds. It has only been a few decades, however, since it was taught that this practice was objectionable on account of the part it was supposed to play in the production of inflammation. Adhesive plaster was advised for holding the lips of the wound together, or the tying across of locks of hair, an impracticable procedure. If a portion of the scalp is raised from the cranium, it is the better course to apply a drainage tube of small size. A small roll of iodoform gauze is frequently used for this purpose, but this is more liable to form a plug by the superficial drying. If the wound is incised or small and upon the hairy scalp it may be drest without the cap bandage by smearing it over with mercurial or zinc ointment or a solution of iodoform in collodion and spreading over it the hair. But, if large, a pad of antiseptic gauze should be used and a cap bandage applied by passing a roller from right ear to left and return two or three times, being held at these points by a finger of the patient or an assistant, then three or four times around the forehead and occiput to the place of beginning, and secured by a safety pin including the entire thickness, and a similar pinning on the opposite side. This bandage should be of gauze or "domestic" not exceeding two inches in width, nor three yards in length. If much exposure is to be encountered, this may be covered with a crinoline bandage. Unless trouble is indicated by temperature or pain, this dressing should not be disturbed for a period of four days, when it may be removed, after moistening with antiseptic water, the stitches taken out and also the drainage tube, if no pus has formed. If infection, sloughing or erysipelas occur, these are to be treated upon the principles of modern surgical practice for wounds in general.

American Journal of Surgery and Gynecology

—EDITED BY—

EMORY LANPHEAR, M. D., Ph. D., LL. D.

Formerly Professor of Operative Surgery in the Kansas City Medical College and Professor of the Principles and Practice of Surgery in the St. Louis College of Physicians and Surgeons.

PUBLISHED BY THE

AMERICAN JOURNAL PUBLISHING COMPANY,

ST. LOUIS, MO.

TERMS:—$1.00 a Year in Advance, in United States, Canada and Mexico.

FOREIGN SUBSCRIPTION TERMS:

England, 5 Shillings. France, 6 Francs. Germany, 5 Marks. Japan, 1 Yen. Holland, 3 Florins. Russia, 1 Rouble 50 Kopecks.

The spelling founded in this magazine is that voucht for by the most prominent educators of this country, and is recommended for general adoption.

ST. LOUIS, SEPTEMBER, 1900.

EDITORIAL NOTES.

The report of the State Board of Medical Examiners of Virginia for the past 15 years is a sad commentary upon medical education (or lack of it) in this country; and contains some items that may be of interest to those having students to educate. It shows that some institutions which rank very highly in some quarters of the globe graduate men who cannot pass even the fair examination of the Virginia board, while others, practically unknown, have a high percentage of successful candidates for license.

To begin with its home colleges (quoting from the table publisht by the Virginia Medical Semi-Monthly), the standing of Virginia's schools was as follows: Medical College of Virginia, Richmond: Applicants, 295, rejected, 43; University College of Medicine, Richmond: Applicants, 206, rejected, 13; University of Virginia, Charlotteville; Applicants, 220, rejected, 10. This is a very fair showing when compared with the Baltimore schools, some of which must be doing foul teaching—judging from satistics. Virginia thus has about 9 per cent of rejections.

Of the Maryland colleges, all located in Baltimore, the following is certainly remarkable: Baltimore Medical College: Applicants, 41, rejected, 22—more than half; Baltimore University: Applicants, 11, rejected, 11—not one past; College of Physicians and Surgeons of Baltimore: Applicants, 136, rejected, 34; University of Maryland: Applicants, 161, rejected, 34; Southern Homeopathic: Applicants, 8, rejected, 3. Johns Hopkins University does not seem to have had any graduates who desired to practice in Virginia. Maryland's percentage of rejections is 30.

District of Columbia fares even worse. The figures are: National Medical College: Applicants, 1, rejected, 1; Howard University: Applicants, 22, rejected, 20; Georgetown University: Applicants, 6, rejected, 2. Columbian University had one applicant—who was licensed. Graduates of other schools in Washington evidently lack courage to try the examinations as none applied. The percentage of failures for the capital of our country is above 79. Truly, a glorious showing! What is the matter with Washington?

Going on farther south, Leonard Medical College of Raleigh, N. C. (for colored students) had 33 candidates, of whom 13 failed —40 per cent, nearly. The Medical College of the State of South Carolina had 33 per cent of rejections, the Atlanta School 70 per cent, Tulane University of Louisiana, none, and New Orleans School of Medicine, none.

The Kentucky schools make this record: Louisville Medical College, 47 per cent failed; University of Louisville, 31 per cent; Kentucky School of Medicine, 10 per cent; Hospital College of Medicine, 25 per cent, making an average of 23 per cent.

Tennessee colleges were far worse than those of Kentucky: Vanderbilt University had 18 per cent of failures; University of Tennessee, none; University of the South (at Sewanee), 80 per cent; Tennessee Medical College (at Knoxville), 75 per cent; Chattanooga Medical College, 100 per cent, and the Meharry Medical College (at Nashville—for colored students), 100 per cent. Average, 80 per cent—nearly.

In the North the percentages are not much higher—with all the boasted "culture" and educational facilities. While Yale Medical School has 100 per cent of successful candidates Harvard has 100 per cent of failures! University of Vermont records 60 per cent of rejections.

The New York schools are somewhat better than those of New England, according to these statistics, the percentages of rejections being as follows: University of the City of New York, 38 per cent; Bellevue Hospital Medical College, 5 per cent; New York College of Physicians and Surgeons, 6 per cent; Long Island College Hospital, 50 per cent; Albany Medical College had no failures. The average of failures for New York is thus practically 20 per cent.

Pennsylvania is worse. The Medico-Chirurgical College of Philadelphia heads the list with 100 per cent of failures; Jefferson Medical College is credited with 42 applicants, of whom 13 failed—31 per cent; University of Pennsylvania lost but 3 out of 23 candidates—13 per cent; the Woman's Medical College of Pennsylvania fell down to 25 per cent rejected, and the Hahnemann College of Philadelphia had 22 per cent of failures. Thus the general average for the great schools of Pennsylvania is only 62 per cent of passes—38 per cent failures!

Ohio is even far lower than this. Miami Medical College had 60 per cent of rejections; Columbus Medical College, 33 per cent; Cleveland Homeopathic Medical College scored 100 per cent of successful candidates and the Pulte Medical of Cincinnati (also Homeopathic) has a similar record; but the Eclectic Medical Institute of Cincinnati offsets it with 100 per cent of failures; Starling of Columbus has the same; the Woman's Medical College of Cincinnati has no failures; the Cincinnati College of Medicine and Surgery has 50 per cent, and the Western Reserve of Cleveland none. Ohio thus has an average of 50 per cent failures.

The Michigan schools are much better: Detroit College of Medicine, 33 per cent failed; Michigan College of Medicine and Surgery, 33 per cent failed; Medical Department of the State University (Ann Arbor) had no failures—thus bringing the Michigan average down to 22 per cent of rejections.

Illinois, as would be expected by anyone familiar with the excellence of the colleges of Chicago, makes the best record: Rush Medical College, no failures; Woman's Medical College of Chicago, no failures; Northwestern University (Chicago Medical College), no failures; Hahnemannian Medical College of Chicago, no failures; and Chicago Homeopathic Medical College, 20 per cent. This gives an average of failures for Chicago at only 4 per cent!

The medical schools of Missouri do not make as good a showing as those of Illinois, nor yet as some others. The percentages of rejections are as follows: St. Louis Medical College, none; Missouri Medical College, 100 per cent; and Beaumont Medical College, 100 per cent—giving an average of 66 per cent. "How long, oh, Lord! how long?" It is, perhaps, a matter for congratulation that graduates of the St. Louis College of Physicians and Surgeons, the Marion-Sims College of Medicine and the Barnes Medical College have not strayed into the depths of "ole Virginy"—what the percentage would have been then is a matter for serious conjecture. Possibly higher? Ask the Missouri State Board of Health!

Taken at its best, the result is a most stinging criticism of the way in which medical schools have been conducted in the not remote past. The figures just given make an average of 26 per cent failures—1714 applicants, 450 rejections in fifteen years. It is, possibly, a happy indication that the examinations for the present year (1900) show only 23 per cent of failures. But even this is disgraceful, for college graduates. Of those who were non-graduates 229 were examined during this period—of whom 136 were rejected; 60 per cent. It is to be hoped that with the advent of the new century the Virginia board will close its present books and begin a new and better record. Let us have the next 15-year period to compare with the one now closed. God grant it may be more satisfactory!

The Mississippi Valley Medical Association—the greatest body of medical men on the Western continent, excepting the American Medical Association—will meet in the city of Asheville, N. C., October 9, 10 and 11, with the following program:

I. N. Love, St. Louis, Mo., Address in Medicine.

C. A. Wheaton, St. Paul, Minn. Address in Surgery.

L. W. Beardsley, St. Louis, Mo. Canthoplasty in Ophthalmic Practice.

Andrew Timberman, Columbus, O. The Etiologic Relation of Eye-Strain to Epilepsy.

Otto J. Stein, Chicago, Ill. Middle Ear Disease in its Relationship to the Cranial Cavity.

George F. Keiper, Lafayette, Ind. Some Observations Gleaned from Some Recent Cases of Mastoiditis.

Alex C. Wiener, Chicago, Ill. Treatment of Tuberculosis of the Spine.

A. J. Ochsner, Chicago, Ill. Relation of Appendicitis to Gall Stones.

B. Brindley Eads, Chicago, Ill. Ventral Hernia Following Laparotomy.

George W. Crile, Cleveland, O. Technic for Removal of Tumors of the Neck.

George W. Cale, Jr., Springfield, Mo. A Case of Intermittent Hydrops of the Knee.

James B. Bullitt, Louisville, Ky. Hernia in Man and Animals.

Thomas H. Manley, New York City. Notes on Fractures Contiguous with or Involving the Articulations of the Larger Bone Shafts.

John L. Jelks, Memphis, Tenn. The Treatment of Peri-Rectal Abscesses.

Sterling B. Taylor, Columbus, O. Obstipation.

J. Rawson Pennington, Chicago, Ill. Simple Operation for Hemorrhoids; Enucleation.

A. B. Cooke, Nashville, Tenn. Revelations of the Proctoscope in Health and Disease.

H. O. Walker, Detroit, Mich. Vaginal versus Abdominal Hysterectomy.

R. S. Sutton, Pittsburg, Pa. Cancer of the Uterus and its Treatment.

C. S. Bacon, Chicago, Ill. The Prevention and Management of Infection of the Breast During Lactation.

J. H. Taylor, Indianapolis, Ind. The Girl at Twelve.

Yeatman Wardlow, Columbus, O. Ectopic Gestation.

Emil Ries, Chicago, Ill. Pathology of Chronic Gonorrhea of Male Sexual Organs.

A. Ravogli, Cincinnati, O. The Gonococci in the Gonorrheal Secretions.

R. A. Bate, Louisville, Ky. Asthma.

T. D. Crothers, Hartford, Conn. The Curability of Inebriety by Medical Treatment.

Wm. O'Neal Mendenhall, Richmond, Ind. The Determination of Sex.

Frank P. Norbury, Jacksonville, Ill. Pulmonary Tuberculosis in Infancy and Childhood.

W. H. Bates, New York, N. Y. Further Observations on the Clinical Application of the Suprarenal Capsule.

Albert E. Sterne, Indianapolis, Ind. The Association of Diseases.

Wm. Porter, St. Louis, Mo. The Growing Necessity for Sanatoria for the Tubercular.

I. H. Goss, Athens, Ga. Erichsen's Disease: Does it Exist? Various Injuries Due to Accident.

William F. Barclay, Pittsburg, Pa. The Philosophy of the Science and Art of Medicine.

J. E. Allaben, Rockford, Ill. Treatment of Adherent Cysts of the Ovary and Broad Ligament by Incision and Drainage.

L. H. Warner, Brooklyn, N. Y. Differential Leucocytosis.

J. G. Carpenter, Stanford, Ky. Suprapubic Cystotomy for Traumatism, with Median Perineal Drainage.

It is gratifying that some of the magazines (and a few of the daily papers) are beginning to appreciate the necessity for suppressing the "medical" advertisements which have been such an eyesore to members of the medical profession. The latest addition to the ranks of decent journalism is Frank Leslie's Popular Monthly, which announces:

"Advertisements for the cure of the opium, morphine and liquor habit; rupture; teaching of hypnotism, mesmerism and mind cure, and others of the objectionable medical class will be refused admission to our pages.

"Any advertisement of any description which we believe is deceptive in its claims, or offensive to good taste, will be declined. It is our purpose to admit only announcements which are thoroughly reliable, and of a clean, desirable character; and to exercise a strict editorial censorship over the advertising pages."

Let the good work go on.

A newspaper devoted to advertising, known as "Our Silent Partner," gravely proclaims that Mr. H. L. Kramer, proprietor of the Indiana Mineral Springs, has become a "Christian Scientist." In the language of the reporters, this is important, if true. For Mr. Kramer, in addition to his interest in mango-mud baths, gold fishes, pleasure resorts, etc., is the owner of "Candy Cascarets," upon which he has spent many thousands of dollars for the purpose of convincing the dear public that his remedy, which "works while you sleep,' is the ideal laxative. If now he has become a disciple of Mother Eddy he cannot conscientiously believe such a thing as a disease—or even a symptom of a disease, like constipation—can exist; if, then, constipation cannot be, is not a drug prepared to relieve a non-existing thing a means of obtaining money under false pretenses? And if the hitherto astute Kramer has became as good a "Christian" as he has "Scientist," can he accept the presumably numerous shekels now rolling in from his skillful advertising? Really, now, Mr. Kramer, isn't this merely a new scheme for bringing "Cascarets" to the attention of the thousands of female followers of Mrs. Eddy, who for a time thought they were relieved of their ever-present enemy, but who now begin again to feel colonic distension interfering with their spiritual meditations? Verily—Woman, thy name is Constipation! And no one better than Cascarets Kramer knows it.

SURGICAL NOTES.

The idea that noctural emissions are an indication for surgical attention is combatted by Dr. Victor Vecki, in his book on "Pathology and Treatment of Sexual Impotence," recently publist by W. B. Saunders, of Philadelphia. To begin with, he rejects the ordinary views as to the infrequency and insufficient vitality of spermatozoa after repeated coitus. A series of miseroscopic observations have shown him that in vigorous, healthy men coitus, after weeks of abstension from the act, is not accompanied by the ejaculation of seminal fluid teeming, as has been said, with abundant spermatozoa, but that, on the contrary, they are comparatively rare. Many show no manifestation of life, and others are by no means active. Repeated coitus is followed by an abundance of young, very active spermatozoa. Observations on the fluid of seminal emissions, tho often made within an hour after the event, rarely show many spermatozoa, and the few present were, as a rule, not especially active. Spermatozoa seem to degenerate while in the seminal vesicles, and it is only after these are emptied that really active germinal particles are to be found in the seminal fluid. The importance of this for certain forms of sterility is evident. This theory, as stated at the opening of this paragraph, gives a new biological significance to noctural emissions that occur normally in the continent. Nature is merely getting rid of germinal material that is no longer in proper condition to fulfill its function perfectly, not merely wasting, as has been taught, precious reproductive elements.

Concerning proper cleansing of the hands, Dr. Joseph Eastman says (Medical and Surgical Monitor): Bacteriological investigation by competent surgeons in New York have proven that 94 per cent of hands and field of operating, sterilized with the chloride of lime or sal soda, were free from pathogenic bacteria; while only 70 per cent sterilized with permanganate of potash and oxalic acid were found to be sterile. After ten minutes' scrubbing of hands and field of operating, the latter having been shaved with the razor, from a tablespoonful of chloride of lime rubbed over the surface until all little particles of lime are softened, we have liberated one of the most potent and penetrating germicides, free chlorine. With a similar quantity of sal soda added, the combination produces carbonic acid and gives the skin a cool sensation; after a persistent rubbing of the two chemicals for a few moments with the aid of some water, the chloride of soda is evidenced by the oily, soft feeling which it produces to the skin after it has been scrubbed; still further immersion of the hands in the alcoholic solution of bichloride is desirable when intraperitoneal operations are to be made. The field of operating, where it is possible, should have a pack of diluted alcoholic solution of bichloride of mercury left on during the night before the operation. In hundreds of abdominal operations where the lime-bleaching process has been used during the last five years, no operator, assistant or nurse has complained of sore hands—a thing which could not be said of any of the other methods which have been used. Cheyne (Amer. Text Book of Surgery) states that there are more pathogenic germs in one inch square of the human skin than are to be found in a whole well-ventilated ward of a hospital.

According to Dr. R. H. M. Dawbarn, of New York, the best method of preserving needles is to use a saturated solution of sodium carbonate (washing soda) in water. He is of the opinion that this method keeping needles and cutting instruments untarnisht is superior to any other which has thus far come within his experience. He has kept needles bright in this way for a year and more. Most of the other methods are open to some ob-

jection. Perhaps the most common method is to sew the needles into an oiled cloth, but this does not always prevent flecks of rust. As to keeping them in carbolized oil, this to some extent dulls the edge of the needles just as carbolic acid in watery solution does that of scalpels; lysol being a dark solution, the needles are not very easily seen in it; calcium chloride in a closed place to keep the air dry, with the needles lying on a dish near it, produces a curious tarnish, almost like rust; in Fuller's earth or other powders it is difficult to find the smaller needles; in alcohol, unless it is absolute (and absolute alcohol ceases to be absolute very soon), the needles will finally rust. A solution of borax in water, as recommended by M. Marechal, will also rust the needles as soon as the thin plating, which all needles have at first, becomes worn away from usage, exposing the steel beneath. Perhaps keeping needles in liquid petrolatum is almost as good a way as that under discussion; its only objection being the unpleasant oiliness. Calcium chloride in absolute alcohol—thus keeping it absolute—is effective, but comparatively expensive. The same is true of placing a sheet of gelatin in the absolute alcohol, the gelatin by its affinity for water keeping the alcohol absolute. The method now advocated—washing soda dissolved in water to saturation—is inexpensive, and if it proves as satisfactory to others as it has to Dr. Dawbarn will soon be almost universally employed.

Journal of American Medical Association says that Osler and McCrae have examined the condition of the blood in 62 or more cases of cancer of the stomach and found that a blood count below 1,000,000 red blood corpuscles is strongly in favor of pernicious anemia. While nucleated red blood corpuscles are present in all very severe anemias, megaloblasts rarely occur in cancer of the stomach. Neither an increase in the leucocytes nor special variations in the form appear to be of any moment in the diagnosis of this condition and the presence or absence of digestion leucocytes is too uncertain to be of much assistance.

Amongst some operators the custom prevails of administering a small dose of morphine before the induction of ether or chloroform anesthesia, especially in nervous patients or those addicted to the use of alcohol. It is claimed that the administration of morphine tends to allay the nervousness and permits of the patient being more easily brought under the influence of the anesthesia. Owing to its unpleasant after-effects, and particularly its tendency to lock up the secretions, morphine has been recently successfully replaced by heroin hydrochloride, employed subcutaneously. This drug, while an excellent analgesic and antispasmodic, has the distinct advantage of not depressing the heart or respiration, and of not affecting the gastro-intestinal tract. In von Hacke's clinic, as reported by Dr. J. Wiesner (Deutsche Aerzte-Zeitung), it has become a custom to administer the subcutaneous injection of heroin hydrochloride before surgical procedures requiring anesthesia. The doses employed for this purpose vary from 1-24 to 1-12 grain, larger quantities being rarely required, and only after the minimum dose has proved inefficient. In the internal administration of heroin hydrochloride it is now being recommended to give the drug after ingestion of food, for the reason that if administered at a time when the stomach reaction is decidedly acid, the remedy acts with greater efficiency and in much smaller doses.

Dr. W. E. Fowler, of Huntsville, Tex., gives (Texas Medical Journal) his experience in the treatment of scalp wounds as follows: During the past few years I have treated innumerable scalp wounds—most of them coming under the head of contused; yet I have had no suppurations—all having healed by what is commonly called first intention. And I attribute my success to the following technic. As soon as the clotted blood is washt off, I shave away the hair with a keen razor. The shaved area is to be parallel to the long axis of the wound, and at least one inch wide. The trauma is then thoroly cleansed with warm carbolized water. I next approximate the edges and close with interrupted sutures; and these sutures are inserted and brought out at least a quarter of an inch from the borders of the cut, and I am always very careful that the needle shall carry them to its floor. I think upon this method of closure depends much of the success, since, the scalp being thick, firm and vascular, tends to recede from the line of injury, and very often requires some force in order to secure closure; hence, if the sutures are inserted too near the edges, the circulation within their radii will be destroyed, necrosis and suppuration supervening. This done, I dress with a preparation, which contains 10 per cent iodoform, and I apply it as follows: With a swab I brush the preparation over the wound and the clean surface surrounding it. Before this has time to dry, I put on a thin layer of absorbent cotton and immediately cover with the solution. The cotton will readily become saturated, and at the end of a few moments will be dry, leaving the injury completely sealed with a firm dressing which, save for looks, needs no other covering. On the fifth day I remove the dressing, take out the stitches and discharge the patient—cured. If the pericranium is cut, I close it with a sublayer of cat-gut sutures.

GYNECOLOGICAL NOTES.

Dr. Georges Apostoli, of Paris, France, the celebated advocate of the use of electricity in gynecology, just before his death, sent to this journal an abstract of an article on "New Applications of the Undulatory Current in Gynecology," read before the Paris Academy of Medicine. He says: The undulatory current has the double advantage of the effects of the continuous and the interrupted current with a more regular and less abrupt (sinusoid) curve than a faradic. The absence of reversal of polarity allows the combined effect of an oscillatory and an electrolytic current. Since the original use of the current by the author in 1896 he has applied it in a large number of cases—4232 times in 308 gynecologic cases up to July 1, 1899. The general results in gynecology are the following: (1) Its dominant characteristic is an analgesic action which causes the diminution and often the disappearance of painful phenomena. It is especially valuable in intermenstrual pains or dysmenorrhea, without being able to supplant entirely either the faradic or static current. (2) Without markt influence upon leucorrhea of infectious origin, it is satisfactory against congestive circulatory troubles attendant on the puerperal stage, and it diminishes certain recent and often rebellious leucorrheas. (3) Without generally exercising against hemorrhages an action as rapidly efficient as that of the continuous current of high intensity, applied thru a non-oxidizable platinum electrode, it is often available against hemorrhages connected with congestive metritis or an arrest of involution. (4) Acting similarly to and often better than abdominal massage, it is of advantage against certain rebellious constipated states and amenorrheas that prove refractory to the galvanocautery. (5) Without direct trophic action against the evolution of fibromata, it is inferior to the galvanocautery in the cure of benign tumors, but it can cause the disappearance of certain congestive and painful conditions due to their growth. (6) Powerless to correct prolapse and displacements, it can, nevertheless, render valuable service by diminishing pelvic congestion and increasing muscular contractility. (7) Especially efficacious in non-suppurative, congestive and exudative circumuterine lesions, by the combination of its analgesic and stimulant action, it aids the resorption of exudates and constitutes one of the best conservative applications. From his large experience the author affirms the absolute safety and universal tolerance of the undulatory current and emphasizes its value in gynecology as (1) analgesic; and (2) resolvent. Both symptomatically and anatomically, its resolvent action is more energetic if the electrode is placed within the uterus than when placed merely within the vagina.

While in New York and Philadelphia quite a number of operators have been making vaginal celiotomy, the operation has not made great strides in the West. Ries and Henrotin, of Chicago, have done some work in this line; and Lanphear recently reported quite a large number of vaginal peritoneal sections for displacements, pyosalpinx, etc., to the St. Louis Academy of Medical and Surgical Sciences. Nowhere in America, however, has the work been carried on as in Germany. For example, Duehrssen (Berliner Klinische Wochenschrift, November 27, 1899) writes of "vaginal laparotomy," saying no one can reproach him with allowing an operation rich in blessings to be discredited by his silence in respect to its advantages. He has performed vaginal section four hundred times in the last eight years, chiefly on account of retroflexio uteri. Vaginofixation is superior to ventrofixation, he states, as it is less dangerous; there is no chance for ventral hernia, nor adhesions of omentum to the abdominal cicatrix, nor of ileus; less dread of the operation on the part of the patient; and much less subjective post-operative discomfort. Intraperitoneal vaginofixation ensures normal anteversion. It requires skill on the part of the operator, and possible failures due to the operator's technic should not be ascribed to the method. He has also performed anterior colpoceliotomy for vaginofixation of the round ligaments, for vesicofixation of the retroflext uterus, tubal pregnancy, extirpation of benign uterine growths and ligating the tube for the purpose of ensuring sterility. Fifteen died out of 503 thus operated on; six died out of 358 cases of retroflexio uteri treated by vaginofixation. Pregnancy is not interfered with.

Dr. Augustin H. Goelet, of New York, in a paper presented at the gynecological section of the American Medical Association, drew attention to the error of regarding every uterine discharge as evidence of endometritis and of employing caustics and astringents which coagulate the secretions and defeat drainage by blocking the orifices of the glands. This and destructive curettage he designates as unscientific, since hyperemia of the mucous membrane with hypersecretion (often mistaken for endometritis) requires no local treatment of the endometrium; in fact, is often converted into an endometritis by such treatment. He pointed out the danger of inserting instruments into the uterus either for diagnosis, treatment or for operations when there is a so-called cervical catarrh. The staphylococci, streptococci and gonococci are often found in the cervical secretion, where they remain innocuous if undisturbed, when the secretion is most inoffensive in appearance, and their presence can only be determined by microscopical examination of the discharge. He insists, therefore, that this method of examination should always be employed in these cases, particularly before the cavity above the internal os is invaded, either for the purpose of diagnosis, treatment or for operations within the uterus. In endometritis, which is less common than is generally supposed, the disease is not confined to the surface, but has invaded the glandular structure beneath, and applications to the surface can be of little value and are certainly objectionable if they defeat drainage by coagulating the secretion. He believes, therefore, that the rational treatment is to free the orifices of the glands and drain them until the infective process is exhausted, at the same time employing repeated irrigation with some non-astringent, non-irritating solution to remove the expelled secretion from the surface and prevent migration. This may be accomplisht by a carefully executed curettage as an initial step—done in a manner not to destroy the mucosa, but merely for the purpose of removing projecting granulations upon the surface or superfluous tissue that may be blocking the orifices of the glands and preventing drainage. The dull curet with rigid shaft is, he thinks, sufficient and the sharp curet should not be used upon the endometrium in these cases. It is both unnecessary and unwise to attempt to remove the entire mucous membrane, and caustics should not be employed afterwards, because they cause necrosis, and atrophy of the mucosa or agglutination of the sides of the cavity may result. He urges that curettage, which is not in itself curative, should only be regarded a preliminary step in the treatment, and that more attention be given to the after-treatment, which he deems most important. This consists of persistent drainage and repeated irrigation until all evidence of disease, as revealed by microscopical examination of the discharge and inspection of the cavity by means of the uterine endoscope, has been effaced. He also urges endoscopic examination of the cavity, both before and after curettage; before, to decide the actual necessity therefor, and after, to determine the completeness or incompleteness of the work. In this way only may errors be avoided. He exhibited a perfected uterine endoscope with a small electric lamp placed at the extremity of the endoscopic tube, for direct illumination of the interior of the uterus after the plan of Valentine's urethroscope. A megaloscope is attacht for bringing out more prominently the details of the surface. By means of this instrument satisfactory inspection of the uterine cavity, including the orifices of the tubes, is made possible.

The value of a blood examination is not fully appreciated by most gynecologists. For instance, but few know that a leucocytosis of ten thousand per cm. or more in a woman with pelvic pain, after all acute symptoms have subsided, points strongly toward suppuration of some of the pelvic organs, provided, however, that diseased conditions of the blood and other organs have been eliminated.

BOOK NOTES.

With the departure of Dr. I. N. Love from St. Louis, this city loses one of its most prominent medical journalists. But the Medical Mirror is not to go with Dr. Love to the city of New York, where it is to be hoped he will find even a wider sphere of usefulness than he has enjoyed in St. Louis. By its offer of $1,000 cash for the best essays on the prevention and cure of tuberculosis the Medical Mirror has been brought to the attention of every physician in this country; and doubtless of every advertiser as well. Doubtless a great financial harvest will be reapt—and deservedly. Dr. Love is certainly to be congratulated on the success already attained by the Mirror. May its reflections be of wider extent and of greater influence from its new editorial home.

Year by years Treat's Medical Annual grows larger and better. That for 1900 is a beautiful 12mo. of nearly 800 pages, giving a resume of the world's best literature for 1899—or that part of it pertaining to medicine and surgery. It is edited by such men as Loomis, Fenwick, Murrell, Robson, Reed, Purrington, Hammond, Priestley, More-Madden and our own S. G. Gant—formerly of Kansas City, now of New York. Every man who writes, and many who simply read, will do well to add this book to his collection, for its reference to important articles even if not for the value of its own contributions—which is great. It is publisht by E. B. Treat & Co., 241 W. 23d street, New York, at $1.75.

The Journal of Surgical Technology is a neatly printed, well edited journal just establisht in New York. It is to be publisht monthly at $1 a year. The publishers are "The Technique Publishing Co., 404 E. 14th street." The absence of the name of the editor is suggestive of a "nigger in the woodpile" in the way of an instrument house or proprietary medicine company as proprietor. The day of unknown editors is past; and happily. The man who is afraid to have his name appear in connection with his editorial writing is a moral coward, unworthy of the respect or support of his fellow practitioners; he who is too modest to allow it is of too little importance in his connection with the journal to be regarded seriously, and "trade journals" are under the ban. Come out of your hiding, doctor. In the language of your own title page: "No anonymous communications will be recognized."

A volume of much importance to physicians has just been issued by D. Appleton & Co. of New York. It is entitled: "The Law in its Relations to Physicians," written by Arthur N. Taylor, LL. B., of the New York bar. It has nothing to do with medical jurisprudence or legal medicine—on which there are treatises enough—but deals with exactly what its title indicates. The different subjects discust are: The right to practice medicine and surgery; contracts of physician and patient; contracts of patient with physician; rights and liabilities of third parties; right to compensation; civil malpractice, including general liability of the physician; criminal liability; and privileged communications. As will be noted every chapter is devoted to a topic of greatest import to every physician; and careful perusal shows that each one contains matter for which the doctor would have to pay dearly in case of litigation. It should be read by every practictitioner of medicine.

The volume of Transactions of the Vermont State Medical Society for the year 1899 has just been received from the secretary, Dr. D. C. Hawley. It is a neatly printed, nicely bound volume of 230 pages, containing much interesting matter. It is the most remarkable volume of transactions ever received at this office in one particular: There are but two papers in it devoted to subjects belonging to general surgery and only two on gynecological topics!

Drs. A. C. Ragsdale and Trovillion of Metropolis, Ill., have issued the first number of "The Southern Illinois Journal of Medicine and Surgery." It is a very attractive number, well edited and with interesting articles. But it will die from non-support. There are entirely too many journals in America; and many will die within the next five years—many of them better even than the "Southern Illinois"—good as it is; and the medical profession will be benefited by their death. Fewer journals, of a higher plane, will be better than the multitude of publications with which the medical profession is now worried. May the "Southern Illinois" do much good while it does exist!

General and Local Anesthesia. By Aime Paul Heineck, M. D., Clinical Instructor in Genito-Urinary Diseases, College of Physicians and Surgeons, Chicago; Clinical Instructor in Gynecology, Chicago Clinical School; Clinical Instructor in Surgery, Northwestern University, Woman's Medical College; 124 pages, $1. G. P. Engelhard & Co., publishers, 358-362 Dearborn street, Chicago. Such is the title of a nice little book, of value, too, which discusses the uses of chloroform and ether; the use of anesthetics in childbirth; anesthetics for diagnostic and therapeutic purposes; anesthetics in surgery; selection of the anesthetic as goverened by the nature of the operation; posture and preparation of the patient; rules for administration of chloroform and ether; precautions before and after; what to do in cases of accidents; methods of applying local anesthetics; the use of cocaine in nose and throat; in genito-urinary surgery; precautions for cocaine anesthesia; infiltration anesthesia and its technic. As it is practically the only special work of the kind in the English language it should have a great sale. It deserves it.

ADVERTISING RATES FOR 1901.

	One Year.	Six Months.	Three Mos.
One Page	$360 00	$180 00	$90 00
One-half Page	180 00	90 00	45 00
One-fourth Page	90 00	45 00	24 00
One Inch Card	18 00	.....	.....

50 Per cent. additional for space facing reading matter.

AMERICAN JOURNAL PUBLISHING COMPANY,

ST. LOUIS, MO.

DO YOU KNOW THE VIRTUES

Of the waters and climate of Eureka Springs, Ark? Do you want to know? We have a booklet on the subject which is yours for the asking; it is free. Address Bryan Snyder, G. P. A., Frisco Line, St. Louis.

COMPOSITION OF VERMOUTH.

French vermouth, now very much in fashion amongst the elite, contains on an average one-ninth of its bulk of 85 per cent alcohol. The following other ingredients enter into its composition: Dry white wine, muscatel wine, bitter orange peel, wormwood, chamomile, water, germander, florentine iris root, centaury, peruvian bark, aloes, cinnamon, nutmeg, raspberry juice, fish glue, helenium, calamus odoratus, holly thistle, angelica root, gentian.

PROF. ASHHURST DEAD.

The distinguisht author and teacher, Dr. John Ashhurst, of the University of Pennsylvania, is dead. His chief work was a six-volume treatise on surgery.

ASTRINGENT MEDICATION IN DIARRHEAL TROUBLES.

Alimentation in gastro-intestinal affections attended with diarrhea is often a serious problem. Owing to the disturbance of the digestive functions in these cases, foods that in health are easily digested frequently act as irritants and increase the diarrhea. Even predigested foods may be badly tolerated, while the digestive ferments no longer occupy a place that they once enjoyed in the therapeutics of gastro-intestinal troubles. On the other hand, much good may be expected of a food which, while highly nutritious and perfectly bland, exerts in itself a slight constipating effect, thus aiding in the relief of the diarrhea. The best type of such a preparation is lacto-somatose, in which the albumoses, or digested albumins of milk, have been firmly combined with a small percentage of tannic acid, only sufficient to induce a slight astringent effect. Lacto-somatose appears in a powder which is practically tasteless and odorless and readily soluble in water and other fluids. It is relished by infants, and may be administered to them with perfect safety even in conditions of extreme irritation of the intestinal canal, such as are met with in acute entero-colitis, gastro-enteritis and cholera infantum.

DR. J. M. RICHMOND DEAD.

Dr. J. M. Richmond, of St. Joseph, Mo., quite a prominent Western gynecologist, died recently at the age of 63. He was once president of the Missouri State Medical Association.

A VISIT TO AN UP-TO-DATE LABORATORY.

A courtesy which was extended to the members of the American Medical Association on their way home from Atlantic City was an invitation to visit the bacteriological laboratory of Messrs. Reed & Carnrick, at Jersey City, N. J. The physicians who availed themselves of the invitation were received by Dr. Warner, and he and his assistants took the keen delight of laborious scientists in showing and explaining the many actualities and possibilities of their constant work and research. The several rooms comprising the laboratory are tiled in white and resemble nothing so much as an aseptic operating room. Instantly the cost and perfection of all the paraphernalia and furnishings used appeal to the eye of the visitor; the rows of microscopes, under which were seen slide after slide, showing bacilli enough to account for even the sufferings of Job himself; then a sterilizer, where diphtheria germs encased in tubes were enjoying a prevailing hot wave. A unique exhibit was a public school book, a geography, which had played hookey, and had been punished by having its cover scraped, and some good, healthy-looking Klebs-Leffler bacilli found upon it.

The most modern microtomes were shown, so delicately adjusted that infinitesimally small sections could be immediately removed from a specimen, which, when stained and mounted under the cover glass, were so thin that they resembled but a wash of water-color.

Then came a look at the animals, kept for experimental purposes, in their comfortable miniature apartment houses. Poor Bre'r Rabbit had tuberculosis, and refused to get better; his neighbor in the fourth floor flat was bravely fighting the ravages of diphtheria, and away out in the suburbs a colony of exclusive guinea pigs ever debated the vexed question of which little pig should go to market. Piggie's answer was awaiting him in the form of a huge Jersey mosquito, safely housed in a tube, and very hungry; and so, after the attentions of his barber in giving him a good, close shave, the guinea pig would, thru the bites of the mosquito, soon be, it was hoped, the victim of malaria.

A visit to the well-equipt dark room, and a view of some fine results in micro-photography, and in a small studio were seen some of the most effective sketches in water-color executed with the greatest skill by Dr. Warner, and replete with most minute details, a privilege, indeed, to see these sketches.

On arriving at Jersey City, should any of our Canadian physicians have the spare time, a few minutes' ride on the Turnpike Trolley will afford an opportunity of spending a delightful hour at the laboratories. W. A. Y.

SANMETTO IN HEMATURIA.

E. B. Gilbert, M. D., Ph. D., of Carbon, Tex., writing, says: I used Sanmetto on a patient who had hematuria of long standing, and it gave the very best of results. The gentleman came back to my office about ten days after I prescribed Sanmetto for him, and said he had tried four doctors (naming them) and had gotten no good results, but that I had cured him. He being a very influential man, and I being a young physician, it has been worth quite a lot to me in the way of practice. I have on hand at present three genito-urinary cases, who came to me for treatment as a result of the success I had on that special patient, who would otherwise have gone to their family physicians."

SANMETTO IN PROSTATITIS AND CYSTITIS.

Dr. F. R. Dobson, of New Orleans, La., late surgeon U. S. A., writing, says: "While surgeon in First Division Hospital, stationed at Jacksonville, Fla., I had occasion to see an interesting case of prostatitis treated with Sanmetto, with entire success. The patient was a private in the Second Nebraska Volunteers, and his condition upon entering the hospital was deplorable, the bladder being distended with urine, the overflow dribbling constantly. His condition was traceable to gonorrheal infection. Since my return to New Orleans I treated with Sanmetto a case of purulent cystitis, which had resisted all other treatment. The result of the taking of one bottle of Sanmetto was permanent relief."

FOOD THEORY OF MEDICINE.

Walter Emery Merrill, M. D., U. S. Marine Hospital service, says: "Among the advanced members of our profession, I believe the drug tissue-feeding theory no longer obtains. And rightly so, for it has not been proved that medicine is ever, in itself, a food. The large number of malarial cases emanating from the tropics are cured in the Marine Hospital service, not by tissue-feeding, but by ridding the system of the intruder and directing the vital forces along the lines of repair. This I find to be best done by the frequent and judicious administration of laxative antikamnia and quinine tablets."

CHANGE OF ADDRESS.

Dr. G. Betton Massey, the well-known specialist in the electrical treatment of diseases of women, has removed to the Professional building, 1831 Chestnut street, Philadelphia.

TIEBAULT & CO.

Among new advertisers in this issue are Messrs. H. H. Tiebault & Co., of New York. The preparation they now have upon the market is one which should meet the immediate support of the medical profession. If the readers of this journal have not tried it, they should do so by all means; and then report results.

PROF. SKENE DEAD.

Dr. A. J. C. Skene, of Brooklyn, the well-known teacher of gynecology and author of excellent books on diseases of women, died July 6, at the age of 63.

NEARLY FIFTY YEARS' GOOD WORK.

Shepard's Sanitarium, at Columbus, O., has now been in successful operation for forty-seven years. That it is now to extend its field of usefulness is shown by the fact that its advertisement appears in this issue of the American Journal of Surgery and Gynecology, which reaches every part of every state and territory of this broad land. It is an institution worthy of the success it has achieved.

COMING RAPIDLY TO THE FRONT.

Probably no firm has come to the front more rapidly than the Camphoral Chemical Company, and their reputation has already come to be considered a standard remedy for catarrh and the troubles of the external mucous membranes.

One reason of their rapid growth is, probably, that they do not send out unsatisfactory samples, but a regular package, for a small sum, and this gives a chance for a thoro examination and testing of the remedies offered.

They have recently put on the market a tablet that is bound to be as popular as their ointment, and that is saying a great deal.

You will find these people prompt in their shipments and fair in their dealings.

LOCATED IN ST. LOUIS.

Dr. Edward W. Lee, for some years one of the most prominent surgeons of Omaha, has located in St. Louis and opened an office in the Linmar building. He will limit his practice exclusively to surgical work.

REMOVED TO NEW YORK.

It is announced by the daily press that after twenty-five years' successful practice in St. Louis, Dr. I. N. Love has removed to the city of New York, where he becomes professor of internal medicine in the New York Post-graduate Medical School. At one time Dr. Love had the largest and best general practice in this city, and at all times for the past quarter of a century has been a prominent figure in local and state medical societies. His many friends here will miss his genial companionship, while even his enemies predict a successful career in the great metropolis. But the expression, "Dr. I. N. Love, of New York," will sound queer for many a year to thousands who know the distinguisht doctor, editor and teacher.

AN EXTRAORDINARY REMEDY.

One of the most extraordinary remedies of the day is Sanguiferrin, the advertisement of which appears elsewhere in this journal. For all conditions accompanied by impoverisht blood this preparation will be found unexcelled, combining as it does iron with blood in such form as to be palatable and at the same time readily absorbable. In the acute anemias following surgical operations it will be found of immense benefit, particularly with those patients who were "run down" before operation.

ACADEMY OF MEDICINE.

The St. Louis Academy of Medical and Surgical Sciences meets every Tuesday evening at the City Hospital, Seventeenth and Pine streets. All visiting physicians are cordially invited to participate in the discussions. Most interesting clinical demonstrations are frequent. James Moores Ball, M. D., president; O. L. Suggett, M. D., secretary.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The Mississippi Valley Medical Association will meet in the beautiful city of Asheville, N. C., October 9, 10 and 11, 1900. The best railroad accommodations can be secured over the Southern Railway and the Queen and Crescent Route, via Louisville. See advertisement elsewhere.

NEW ADVERTISEMENTS.

A number of new advertisements appear in this issue of the Journal. Indeed, more than $1500 in new contracts have been secured during the past thirty days—an unprecedented record for this season of the year. The prospects now are that the American Journal of Surgery and Gynecology will be the most prosperous journal in America in the year of our Lord 1901. Watch it! In the meantime read the advertisements.

MISSOURI VALLEY MEDICAL SOCIETY.

This society will meet at Council Bluffs, Ia., September 20. An excellent program is announced by the secretary, Dr. V. C. Treynor, of that city.

TO MEET AT LOUISVILLE.

The American Association of Obstetricians and Gynecologists will meet at the Galt House, Louisville, Ky., September 18, 19 and 20, under the presidency of Dr. R. B. Hall, of Cincinnati. A remarkably good program has been prepared, with such men as Laidley, of St. Louis; Hayd, of Buffalo; Murphy, of Chicago; Dorsett, of St. Louis; Longyear, of Detroit; Price, of Philadelphia; Pantzer, of Indianapolis; Vander Veer, of Albany; Reed, of Cincinnati; Rosenwasser, of Cleveland; Goldspohn, of Chicago; McMurty, of Louisville, and others of equal prominence as authors of papers.

DR. STOCKARD'S SANATORIUM.

In another part of the ournal will be found the advertisement of the Atlanta Retreat—the most prominent institution in the South for the treatment of habit-diseases. To our thousands of Southern readers we can most cheerfully commend Dr. Stockard as an exceptionally competent and strictly ethical physician to whom patients suffering from drug habits may be sent with fullest confidence.

Menorrhagia is not very common among young girls. When found, its management must, of course, depend upon the pathologic condition which causes the hemorrhage, and it is rare that one is compelled to treat the bleeding directly. In case of extreme necessity, however, one may use very hot douches—simple or with gelatin solution—small quantities of fluid frequently repeated (200 c. c.). Rectal irrigations with very hot water by means of the double current tube may be used for a considerable length of time. The application of ice to the abdomen, the administration of ergotin by mouth, by rectum or hypodermically, are measures which will seldom fail to arrest the bleeding unless dependent upon a tumor. Above all, complete rest in bed is an essential part of the treatment. When these girls come to the physician on account of an immoderate flow of blood at each menstrual period, they must be put to bed during their menses and not allowed to get up for 24 to 48 hours after all signs of bleeding have disappeared. They must remain as quiet as possible and not even rise in bed for their meals. At the onset of each period this treatment must be renewed, (and it may be said that the rest in bed is more difficult to enforce than any other measure, be it ever so disagreeable. It will be found, however, that as the treatment progresses there will be a shortening of th duration of the menstrual period and a diminution in the amount of blood lost. When the girls are allowed to get up they must be cautioned against too great physical or mental exertion of any kind, and all such forms of exercise as bicycling, riding, sewing, dancing and running must be for the time being prohibited. Later these may be allowed in moderation, and their effects upon the genital apparatus carefully watcht. An important item is to get the body into the best possible condition. This means proper hygiene, especially as to diet, exercise, clothing, bathing, etc. Cold sponging and frictions will help to restore to the skin its eliminative functions. Cold douches are excellent stimulants to the nervous and circulatory system, and next to rest in bed the most efficient measure. Baths tend to bring on the menstrual flow, and must therefore be taken lukewarm rather than cold, and only be of short duration. Spices, game, preserved meats, alcoholic beverages and tea and coffee in excessive quantity must be avoided. Fresh air, especially a sojourn in the country, if possible in the mountains rather than at the seashore, is very beneficial. One must not wait until anemia sets in, for then the treatment is far more difficult.

According to Dr. H. C. Bloom, of Philadelphia, the following prescription is an excellent one for amenorrhea:

Sulphate of strychnine	0.1
Oxalic acid	0.5
Peptonate of iron,	
Lactate of manganese	aa. 8.0
Compound extract of colocynth	2.0

Mix.—Divide into sixty powders. One powder to be taken about an hour after each principal meal.